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New light on Genesis



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NEW LIGHT ON GENESIS

NEW LIGHT ON GENESIS

OR

CREATION DURING DESCENT IN THE SCRIPTURES.

BY THE

REV. MORRIS MORRIS, M.Sc.

(late Research Scholar in Geology in the University of Melbourne.)

"Think carefully of the successes we arranged for Darwinism, Marxism, Nietzsche-ism. To us Jews, at any rate, it should be plain to see what a disintegrating importance these directives have had upon the minds of the Gentiles." PROTOCOL NO. 2 OF THE LEARNED ELDERS OF ZION, 1923.

"There is no quarrel between Nature and Revelation; only fools think so; to wise men the one illustrates the other." C. H. SPURGEON
—PERSONAL REMINISCENCES by W. Williams, p. 83.

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AUTHOR'S PREFACE.

This tract is not a treatise, but the experience of a man of science, who was strangely led, some years ago, to discern and feel his need of "Eternal Life," by observing what life has done in plants and animals. He was enabled to see that sin is really death, or the absence of life from the soul; that he himself was dead, and therefore incapable of anything but "dead works"; that none of his "virtues" were the "fruit of the Spirit," but merely "vices in disguise," because they all sprang from the same root of self-interest as acknowledged sins. In this needy, wretched, and desperate condition, he found "the Author of Life" and Redemption in the Lord Jesus Christ.

In consequence of disputes about the authority of the Scriptures, he decided later on to investigate for himself, taking care to distinguish what has been tried and proved from what has not. These inquiries have convinced him, that the Scriptures, from cover to cover, have been verbally and infallibly inspired by "the Spirit of Truth." If there is one part of them more than another—the prophecies alone excepted—which has led him to this conclusion, and has opened up the need, meaning, and sufficiency of "the New Covenant," it is the early part of Genesis (chapters i-iii); and this is the subject of the following pages.

These pages are not addressed to men who have made up their minds; much less to those who have *shut* their minds, but rather to those of the younger generation, who are *forced* to face the facts of Research which they learn at school, and are assured at the same time by ignorant advisers, both at school and

at church, that these facts are inconsistent with the Scriptures. He has therefore subjected all his remarks to heavy pruning, and has also sought the greatest simplicity of expression.

An even stronger motive for drastic abbreviation is the need for *economy* in the initial cost of publishing a book at the present time. This accounts for the omission of an important, if not vital chapter, entitled "Mendelism and the Antiquity of Man," where (1) the author points out the necessity of distinguishing the age of our species from that of other species, quite distinct from ours, though they were no doubt closely related to it, and perhaps preceded it immediately in the line of descent; (2) he dates the antiquity of our species from its true starting point, that is, the year, month, day, and hour, when the first father of our species was born; and (3) he shows that even the best attempts to express the age of our species in years have been built on foundations which are admittedly theoretical; and that, apart from these conjectures, there is no solid evidence at all for pushing its birthday back farther than the time indicated in the Scriptures.

In conclusion, the author gratefully acknowledges his indebtedness to all who have helped, particularly to Miss H. Chambers, of Melbourne, who typed all the MS., and to his brother, the Rev. D. J. Morris, B.A., Melbourne, who contributed valuable suggestions. The book goes forth attended with humble prayer that troubled souls will find it a light to their feet.

The Oaks,

Gipsy Hill,

London, S.E. 19.

MORRIS MORRIS.

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PART I.

THE DOCTRINE OF DESCENT
DISTINGUISHED FROM EVOLUTION.

CHAPTER I.

ORIENTATION.

A SUCCESSFUL orchardist spends much of his time in contending with the *pests* of the orchard ; and he does this because it *pays*. If he neglected this part of his work, the pests would soon spoil the fruit-bearing capacity of the trees, and destroy his revenue. It is only by fighting the pests that he enables the trees to “ bring forth much fruit.”

Not all orchardists, however, know the need, and fewer still understand the right methods, of pest-destruction. There are different kinds of pests ; they attack the trees in different ways ; and they need different methods of treatment. In order to discover these ways and methods, the pests themselves must be first of all discovered. Sometimes this is difficult, even when the seeker is diligent, and uses the advantages of the microscope and the laboratory. But be the pest ever so elusive, sooner or later somebody finds its nidus, studies its habits, and discovers the time when, and the place where, it becomes vulnerable. And when other orchardists have learned the results of his researches, those of them who are intelligent, make preparations to deal with the pest at the proper time and place, and they spray it then and there. Fools ignore or despise such researches. The principles of “ main force and stupidity ” are quite good enough for them. Forsooth, they also spray, but without taking pains to discover the right solution or the

proper time and place to apply it; and therefore they damage the pests no more than if they tried to shoot them with a gun. In spite of their brawny exertions, the pests flourish and the fruits decay.

And such is the Kingdom of God. But the trees of this orchard are *living souls*; and the pests which attack them are *falsities*, especially those falsities which have become so cunningly associated with incontestable facts, that they seem to be part and parcel of the facts themselves. Of these elusive falsities, none has proved more mischievous to believers, especially educated believers, than *false* interpretations

(1) of the Doctrine of Descent,
and (2) of Genesis i to iii.

The *facts* of Scripture and the *facts* of Nature can never disagree. If ever they *seem* to disagree, it is only because either or both of them have been misinterpreted. At present, it seems as if there are discrepancies between the Doctrine of Descent and Genesis i-iii; but they are only *apparent* discrepancies: they arise from wrong interpretations. In the following pages, these false interpretations are brought to the light, and replaced there by the true. It is shown

- (1) that Evolution is a false interpretation of the Doctrine of Descent;
- (2) that the Doctrine of Descent implies Creation (not Evolution) during descent;
- (3) that the Scriptures (Genesis i-iii), rightly translated and interpreted, give a literal, exact, discriminating, and complete account of Creation during Descent, thus correcting the error of Tradition (Creation without Descent), and the error of Evolution (Descent without Creation);

(4) that the Fall (Genesis iii) was really the *Death* of man as a *spiritual* being; and therefore it reveals his need of "the last Adam" to give back the Life—the spiritual Life—which was lost in "the first Adam."

The need for such a book has long been acute. Biologists are entirely unanimous in accepting the Doctrine of Descent (as distinguished from Evolution). They reached this verdict more than forty years ago; and there is no prospect or possibility that it will ever be revised. But, for all that, many men of Religion are still denouncing it in the interests of an interpretation of Genesis i-iii, which is traditional to be sure, but proves to be unscriptural; and, on the other hand, many men of Science are still railing against the Scriptures in the interests of Evolution, that is, a *false* interpretation of the Doctrine of Descent. These two camps are still glaring at each other; and occasionally they come to blows. Two years ago, a bill to prohibit the teaching of the Doctrine of Descent was introduced into the legislature of Kentucky (U.S.A.) and nearly carried! And recently similar bills have actually been carried in two of the other states!

Do not be in a hurry to censure these warriors. They fight because they believe! They deserve everlasting thanks for refusing to drift like the "agnostics," or settle down into a false position like the "higher critics." All honour to those who "have kept the faith"! And if they cannot be commended for fighting against the Doctrine of Descent, let us remember that they have only seen it in the dress of Evolution. They must thank men of science for misleading them there! So they spurned the fact,

because they objected to the lie with which it has been identified. And let us deal justly with the other side too : The world is indebted to those men who established the Doctrine of Descent ; and it owes them pity rather than blame for confounding it with Evolution. Their attacks on the Scriptures, particularly Genesis i-iii, are deplorable ; but after all, it is only an *interpretation* of these Scriptures which has provoked their hostility. This, forsooth, is the traditional interpretation ; it is the only interpretation which they or their opponents have ever considered or conceived ; but it proves to be thoroughly unscriptural, as we shall see later on. The whole controversy has its origin in these deeply-rooted misunderstandings. It is not an opposition of facts, but of facts which have been entirely misinterpreted.

The need appears all the more urgent, when we consider the lamentable *effects* of this controversy. It has disturbed not only the authority of the Church, but authority in general. It is a stumbling-block to the rising generation. It has troubled the whole world. It sets up secondary reverberations, which are pealing through earth and sky : they are shaking "the powers of the heavens," and threatening the foundations of the earth. A controversy so big with mischief ought to be settled, if possible, without delay. If it arises from misunderstandings, they should be cleared up at once. And this is the object of the following pages.

But have we not books enough on the subject already ? Are they not still falling from the press like autumn leaves ? We have enough and to spare ! But of what value are they ? They are all dead to

Truth ! They have no life, and therefore they are as light as autumn leaves ! There is no promise of spring in them : they are ugly omens of wintry weather. Without a single exception, they all take it for granted, that Genesis i-iii is exactly what our traditional versions and interpretations represent it to be, and that Evolution is implied by the Doctrine of Descent. There is not one of them which recognizes these all-important distinctions.

These makeshifts are still being recommended to the rising generation ! What could be more unsatisfactory ? They introduce new falsities and make the confusion worse than ever. In their rage against the dross, they throw out the silver too ! Their axes are lifted up to destroy, not only the ivy of error, but also the solid wall of incontestable Truth, which the ivy has overgrown. Pull down the ivy by all means, but spare the wall underneath. The need for discriminating is self-evident ; but it is never recognized. That is why the author, being himself a trained geologist and biologist, and also a convinced believer in the infallible inspiration of the Scriptures, feels obliged to draw attention to it now. He is not an authority on Hebrew ; but, wherever points of exegesis arise, he has worked in consultation with his brother, the Rev. David John Morris, B.A., of Melbourne, who is a Hebraist of high order ; and he has obtained further confirmation on certain points by consulting good Hebraists in England.

CHAPTER II.

THE DOCTRINE OF DESCENT.

[*The numbers in the text refer to the books enumerated in the Bibliography on page 133.*]

I.

THE Doctrine of Descent is the theory that all organisms, both plants and animals, including man, have descended from a common stock.

By "descent," we simply mean, that every organism *descended* from some other organism. That is all it connotes: Just as every man is the child of ancestors, and all men are the children of a common ancestor, namely, the first man, so *all* animals and plants are the offspring of a common stock in the distant past, namely, the first organism or organisms which appeared on the earth. Though this primitive stock became the common ancestor or ancestors of all other living things, they themselves had no ancestors. They *introduced* life into the earth. As we shall see in due course, they were formed out of the inorganic elements of the earth, or, as Scripture has it, "the dust of the ground." But the Doctrine of Descent has nothing to say about the origin of the first organism or organisms. That is where it begins. It takes that for granted. With that as a starting point, it asserts nothing more than the simple idea, that all plants and animals, whether living or extinct, were derived from one and the same source. To that

common ancestor or ancestors it relates them all by unbroken chains of generations.

It follows from this, that the various kinds of plants and animals which abound everywhere, on land, in the sea, and in the air, must be attributed to *variations* during the process of descent. Accordingly, the Doctrine of Descent is often defined as "Variation during Descent." It does not tell us what "Variation" is; much less what its *cause* is. It implies the *fact*, that "Variation" has taken place during the course of Descent, but leaves the nature and cause of "Variation" an open question.

Darwin was not the first to conceive this theory, but one of the last. Though it came to its own in modern times, it is not at all a modern doctrine. It is said to have been expounded from the Scriptures by St. Augustine in the fourth century of our era; and was even contemplated, though in a crude form, by Aristotle and others during the palmy days of ancient Greece. Since the close of the "dark ages," it has enlisted many advocates, including men so distinguished as Goethe, Descartes, Kant, Buffon, Leibnitz, Lamarck, Geoffrey St. Hilaire, Robert Chalmers, Erasmus Darwin (grandfather of Charles), and Herbert Spencer. But it was Charles Darwin, assisted by A. R. Wallace, who placed it on a solid foundation of evidence in the year 1859. Being keen, accurate observers, they not only contributed new arguments, but also supported the old arguments with new facts of unprecedented variety and abundance. It is unnecessary to go over them again. They have often been stated before, and may be read in any good library, or learnt in any good school.

Biologists received the new doctrine critically at

first, but afterwards, as the evidence accumulated, with confidence and satisfaction, Soon it began to make disciples of such well-known Englishmen as Lyall the geologist, Hooker the botanist, and Huxley the physiologist, besides winning its way in foreign countries. During the twenty years succeeding the publication of *The Origin of Species*, astonishing progress was made in embryology and in the discovery of fossils. In 1862, the jurassic toothed bird was discovered; and it has so many reptilian features, as to lead the German naturalist, Wagner, to call it a reptile. In 1875, Marsh reported more toothed birds in the cretaceous beds of America.

In 1878, Huxley reviewed the preceding twenty years' work and concluded as follows:

"On the evidence of palaeontology (the science of fossils) the evolution (Descent) of many existing forms of animal life from their predecessors is *no longer an hypothesis, but an historical fact.*" (a)

Two years later he summed up again, as follows:

"What is the state of the case now, when, as we have seen, the amount of our knowledge respecting the mammalia of the tertiary epoch is increased fiftyfold, and in some directions even approaches completeness? Simply this, that if the doctrine of evolution (Descent) had not existed, palaeontologists must have invented it, so irresistibly is it forced upon the mind by the study of the remains of the tertiary mammalia, which have been brought to light since 1859. . . . I venture to repeat what I have said before,

(a) 17, pp. 225-6. In these extracts from Huxley and others, the word "evolution" is used for "The Doctrine of Descent," as if they had the same meaning. This is a very serious mistake, as we shall see in the next chapter. Properly speaking, Evolution goes far beyond the Doctrine of Descent. For the present, however, it is enough to point out, that, in these extracts, the word is used in the ordinary, careless way to denote the Doctrine of Descent and nothing more.

that so far as the animal world is concerned, evolution is no longer a speculation, but a statement of historical fact. It takes its place alongside of those accepted truths which must be reckoned with by philosophers of all schools." (b)

And in 1893, Huxley wrote,

"The fact of evolution (variation) is to my mind sufficiently evidenced by the fossil record." (a)

In 1904, Dr. Woodward—famous for his researches in Egypt on the affinities of the elephant, the whale, and the sea-cow—closed his address on "The Evolution (Descent) of Vertebrate Animals in Time," by saying,

"I would only remark in conclusion, that the geological record, so far as preserved to us, gives proof of progressive advance in vertebrate life, and we find throughout the rocks, undoubted evidence of development from lower to higher forms."

In 1906, Dr. Thompson (1) wrote,

"Among the extinct animals disinterred from the rocks, many form series, by which those now existing can be linked back to simpler ancestors." (c)

And again :

"It is sometimes possible to trace a whole series of extinct forms through progressive changes." (c)

In Zittel's (2) words :

"A considerable number of fossil transitional series are known to us, notwithstanding the imperfection of the geological record. By transitional series are meant a greater or lesser number of similar forms occurring through several successive horizons, and constituting a practically unbroken morphic chain. . . . The most striking and most numerous examples of transitional series naturally occur in types well fitted for preservation, such as molluscs, brachiopods, sea-urchins, corals, and vertebrates." (c)

(a) 17, pp. 241-2.

(b) 17, Introduction, p. vi.

(c) Introduction.

As P. R. Mitchell, F.R.S., wrote in the *Encyclopedia Britannica*, in 1910, when reviewing all the evidence, namely, Embryology, Comparative Anatomy, the Distribution of Living Species, and the Distribution of Extinct Species,

“in the prodigious number of supporting discoveries that have been made (i.e. during the last quarter of the 19th century), no single negative factor has appeared, and the evolution (Descent) from their predecessors of the forms of life existing now or at any other period must be taken as proved.”

In 1912, the *Encyclopedia Britannica* stated the position as follows :

“Since Huxley and Sully wrote their masterly essays in the 9th edition of this Encyclopedia, *the doctrine (of Descent) has outgrown the trammels of controversy, and has been accepted as a fundamental principle. . . . The dominant feature in the recent history of the theory has been its universal acceptance, etc.*”

In 1913, the *New Encyclopedia* wrote,

“The general idea of the Theory of Descent is admitted by all.”

In 1914, Professor Arthur Dendy said, in his Presidential Address to the Zoology Section of the British Association,

“Thanks to his (Charles Darwin’s) labours and those of Alfred Russell Wallace, supported by the powerful influence of such men as Huxley and Hooker, *the theory (of Descent) was placed upon a firm foundation, in a position which can never again be assailed with any prospect of success.*” (a)

And so on. Citations could be multiplied ; but these will serve to indicate the complete unanimity of biologists in taking the Doctrine of Descent as proved.

II.

But Darwin and Wallace were not content with establishing the *fact* that Variation has taken place during the course of Descent. Like Lamarck and others before them, and like De Vries and others since, they tried to go on and *explain* Variation, that is, to resolve it into a natural cause or "evolution." This is where they failed. Their theory of the cause is generally known as "Natural Selection" or "Darwinism." Like all other forms of evolution which have been put to the test, it has gone to pieces on the rocks of evidence. The *fact* of Variation is admitted by all, but debate goes on with regard to the *factors*. After more than sixty years' labour, not a grain has been harvested in this field of research.

CHAPTER III.

VARIATION AND ITS CAUSE.

THERE are two main ideas, then, in the Doctrine of Descent, namely,

- (1) Descent,
- and (2) Variation.

Descent explains the resemblances of species, and Variation their differences.

If Descent is a fact, Variation follows. All naturalists agree that Descent is a fact. For more than forty years the evidence has appeared to them overwhelming and incontestable; and to-day it seems surer than ever. It follows, therefore, that *Variation* must be true. It is as sure as Descent.

Now that is as far as the Doctrine of Descent claims to go. On reaching the *fact* of Variation it leaves us; but it leaves us asking questions: "What is Variation?" Above all, "What is its cause?" These are questions which naturalists have been very ambitious to answer. And, therefore, where the Doctrine of Descent ends, new theories sprang up to deal with the *cause* of Variation. These are the theories which the word "Evolution" denotes.

It may be said at once that all theories of the cause of Variation have failed. In other words, Evolution has failed in all its forms. Descent is the light hemisphere of the subject; Variation is the dark hemisphere. But although evolutionary theories of the cause of Variation have all been falsified by evidence, there are

three, which seem too important to be left unnoticed, even in a sketch so brief as this. These are :

- (1) the Theory of Lamarck,
- (2) the Theory of Darwin and Wallace,
- and (3) the Theory of De Vries.

These men attributed Variation to different causes ; but they all set out with the same assumption : they all took it for granted, to start with, *that Variation is taking place now*, and that it consists of the *ordinary changes* which may be seen taking place in plants and animals all around us. Every one has noticed these changes. It is a matter of common observation, for instance, that a limb or an organ develops as a result of exercise, and degenerates through disuse. Then, too, offspring vary from their parents in certain particulars, more or less minute. And, again, it sometimes happens, that “ a sport ” is produced, that is, a plant or animal which varies from its immediate ancestors in one or more *important* particulars. All these types of change are taking place under our eyes. But are these the changes which have resulted in the transmutation of species ? We know now that they are not. But the possibility that they *might* be, seemed feasible enough to the workers mentioned above, to deserve and demand a thorough investigation ; and on the ground of this possibility they built their several theories. Let us take them in order.

(1) *Lamarckianism, or the Theory of Lamarck*, started with the well-known fact, that some organs of a plant or animal may be *modified by exercise* ; and it takes for granted, that modifications developed in this way are capable of *hereditary transmission*. Put very briefly, “ Lamarck told us, that (variation) was due to the accumulated results of individual effort in response

to a changing environment, and also to the direct action of the environment upon the organism." (a) According to this theory, the giraffe acquired a long neck by stretching after the best tree-tips. During successive generations, the longer-necked individuals were able to obtain more food than the rest, who accordingly died off; but the former increased, and transmitted to offspring the longer neck they had acquired. Or, to take another example, herons and long-necked waders were derived, according to this theory, from generations of short-necked birds, whose object was to catch fish without wetting themselves. But, as Huxley said, "the bird would surely have renounced fish dinners long before it had produced the least effect on leg or neck."

But the most serious objection to this theory is, that no one has ever yet been able to find an instance of the hereditary transmission of acquired characters.

On these grounds, Lamarck's theory was abandoned even before the end of the eighteenth century.

(2) *Darwinism, or the Theory of Darwin and Wallace*, started with the following observed facts:

(a) that animals resemble their parents, but also vary from them to a slight extent;

(b) that some of these variations are inherited.

According to the theory of Darwin and Wallace, slight accidental variations of this kind are inherited by each succeeding generation; and thus accumulating, they give rise, sooner or later, to permanent races, first of all, and finally to new species. In order to show the importance of these minute variations, Darwin demonstrated, in the case of pigeons, the remarkably diverse

types which may be derived from a common stock by selective breeding. But in order to make his illustration effective, it was necessary to find something in nature equivalent to selection; and he claimed to find this in the admitted fact, that animals increase far too rapidly for the earth to contain them all, the result being a *struggle for existence*. The roe of the sturgeon, for instance, hatches as many as ten million eggs! But there is only room for a few of them—not more than two on an average. And the constant production of numberless variations in a world which is only big enough to hold a minute proportion of them, gives rise to a perpetual struggle, where only those best suited to their surroundings can survive. Thus nature propagates species through the best (“fittest”) individuals, and gets rid of all the rest (“unfit.”) To use threadbare terms again, “the struggle for existence” ensures “the survival of the fittest.” As a stock-breeder keeps on selecting the types he fancies, and eliminating other types, so the struggle for survival has the effect of selecting the variations which are best adapted to their surroundings, and of annihilating all the others. To this “natural selection of accidental variations,” Darwin and Wallace attributed the origin of species.

Without doubt this process is going on all the time. Without doubt, it explains the “*survival of the fittest*.” But can it explain the *arrival* of the fittest? That is the question! Darwin argued that it can. But in spite of his bias, no one seems to have felt more dubious about Darwinism than Darwin himself. A cold shiver went down his back (as he confesses in the *Autobiography*), whenever he asked himself, whether the natural selection of accidental variations could account

for the peacock's tail or the human eye. Huxley was still more dubious. In 1860, he referred to the theory of natural selection as "still a hypothesis, and not yet the theory of species." (a) "After much consideration," he continued, "and with assuredly no bias against Mr. Darwin's views, it is our clear conviction, that, as the evidence stands, it is not absolutely proven, that a group of animals having all the characters exhibited by species in nature, has ever been originated by selection, whether artificial or natural." (a) And he never altered this opinion. In an introduction (written in 1893) to some essays, he remarks :

"As I have said in the seventh essay, the *fact* of evolution (he means variation) is to my mind sufficiently evidenced by palaeontology (the fossil record): and I remain of the opinion expressed in the second, that until selective breeding is definitely proved to give rise to varieties infertile with one another, the logical foundation of the theory of natural selection is incomplete. We still remain very much in the dark about the *causes* of variation, etc." (b)

And to-day we are still in the dark. But we are no longer in the dark about the theory of natural selection ! In Huxley's day, this theory was on its trial. But now the trial is over. Ten years ago W. Bateson (3) delivered the verdict in his Presidential Address to the British Association meeting at Melbourne :

"We have done," he said, "with the notion that Darwin came latterly to favour, that large differences can arise by accumulation of small differences."

And again :

"Modern research lends not the smallest encouragement or sanction to the view, that gradual evolution (variation) occurs by the transformation of *masses* of individuals, though that fancy has fixed itself on popular imagination."

(a) 16, p. 333. (The italics are mine.)

b) 17, Introduction, p. vii. (The italics are mine). See note, p. 18.

To-day, the failure of Natural Selection is being recognized on every hand. But biologists themselves have been slow to believe ; and even since 1914, when Bateson pronounced it a total wreck, and pointed out the rocks where it has foundered, some of the die-hards have been trying to salvage the wreck, and others have actually proposed to float it off ! But so recently as last October twelve-months, J. C. Willis, Sc.D., F.R.S., published an article, which will surely persuade them to leave the old wreck to its fate. This is how Willis sums up :

“ The question may well be asked therefore, why it (the theory of Natural Selection) remains largely accepted as the general principle that has guided Evolution (he means Variation). If, after all these years, it cannot explain, in the very subjects for which it was devised, their most general and outstanding features, it is clear that it would be wiser to abandon it. For a long time, explanation by its means has been increasing in difficulty . . . ; and the vast range of the new facts indicated above, to which it is hopelessly inapplicable, seem to render its position so precarious, that it is practically untenable. It has become a hindrance to progress.” (a)

(3) *De Vriesism*, or the *Theory of De Vries* : Lamarck referred the origin of species to variations acquired by exercise ; and Darwin to the minute variations which distinguish individual plants and animals from their parents. De Vries looked for it in variations of another kind. These are not minute but considerable ; they do not occur continuously but discontinuously ; they are not the products of small changes slowly accumulated, but of one change which arises suddenly ; and they do not arise in masses of individuals at the same

(a) 18, p. 624.

time, but in *one* individual. Such an individual is described as a "sport," or "leap," or "saltation."

Whenever a "sport" appears in nature, it mingles with the normal descendants of the parent stock, and brings forth after its kind. It propagates a new race; and the two races increase together without being separated. Examples of this are well known both in plants and animals. Huxley mentions two classic examples (*a*): One was the "Ancon" or "Otter" sheep, born in 1791, on an American farm, in a flock of normal sheep. This sheep differed from its parents "by a proportionally long body and short bandy legs." It propagated a new race, though mingling freely with the old. The other example was Gratio Kelleia, a man of Malta, who possessed six perfectly moveable fingers on each hand, and six toes, not quite so well formed, on each foot. Both his parents were normal. He married a normal woman, and had four children, one of them resembling the father, one of them the mother, the other two being hybrids. To use the words of F. A. Dixey, M.A., M.D., F.R.S.,

"We know now, that . . . no amount of interbreeding will abolish either type; intermediates (hybrids), if formed, are not permanent; and if one type is to prevail over the other, it must be by means of selection, either natural or artificial." (*b*)

But are these the Variations which result in new species? In 1900 Zittel wrote:

"A present tendency of thought is to regard discontinuous variations or mutations ('sports') as the material on which Natural Selection works, and to consider that the

(*a*) 16, pp. 307-310.

(*b*) 4, p. 206.

process of Evolution (he means Variation) takes place by definite steps." (a)

This tendency of thought has gone the way of Darwinism and Larmarckianism. There is no doubt that Variation has taken place in stages—the Geological record shows that; but there is no evidence that it is taking place now. It seems certain, that the Variations which gave rise to new species were discontinuous, and that each of them arose in a single individual; but it is equally certain, that these variations were not "leaps" or "sports." The work of Mendel has made this clear. "Leaps" or "sports" may illustrate, but they cannot explain variation. In the words of A. B. Rendle, Sc.D.(3):

"Sports or mutations, arising under cultivation . . . afford no evidence as to the origin of species in nature."

(4) These are the three main theories of Variation, and they have all failed. Attempts have been made recently to supply other alternatives; but they are frankly counsels of despair.

Lotsy, for instance, has proposed to account for Variation by *crossing*! Now crossing may account for recombinations of factors already in existence; but how could it account for the addition of *new* factors? Could the vertebrate type arise, as Lotsy suggests, by the crossing of two invertebrates!

Bateson modestly declines to father any alternative; but contents himself by suggesting, as a basis of discussion, that all the factors were in the first organism of all ("the primordial cell"), and that

(a) 2, Introduction, p. 14.

variation is due to the unloading of these factors one by one, that is, to the *loss* of something. This view only pushes the problem back to the primordial cell, and leaves it there. It does not explain the *origin* of the factors, but leaves us the task of accounting for their origin all together in the first organism, instead of one by one during the long course of descent. We do not solve our problems by pushing them back out of sight. Moreover, there is something sophistical in trying to explain addition by subtraction. It brings to mind the old phlogistonists, who tried to account for the increase of weight which takes place in metals during combustion, by calling it "*negative*" weight! And by means of this trickery, they retarded the progress of chemistry for 100 years.

The President of the British Association proposed in 1921 to combine the theories of Lamarck and Darwin. But this view has the fatal defects of both theories.

To sum up : None of the changes which are observed to be taking place now, can account for the origin of species. In the words of W. Bateson, "The appearance of contemporary variability proves to be an illusion." (a) And again he remarks :

"On analysis, the semblance of variability disappears; and the illustration is shown to be due to segregation and recombination of series of factors on predetermined lines . . . In face of such a result we may well ask with Lotsy, is there such a thing as spontaneous (i.e. uncreated) variation anywhere? His answer is that there is not." (a)

(a) 3, Presidential Address.

Bateson concludes thus :

“ We see no changes in progress around us in the contemporary world which we can imagine likely to culminate in the evolution of forms distinct in the larger sense.”

As to the *cause* of Variation, Bateson admits “ we are absolutely without surmise or even plausible speculation.” As W. J. Sollas, LL.D., Sc.D., F.R.S., has said, “ how slight is our knowledge, or rather how dense is our ignorance of this question.” (a) “ It is in this field,” remarked A. B. Dendy in 1914, “ that controversy rages more keenly than ever before.” (b)

(a) 5, Presidential Address, p. 112.

(b) 3, p. 383. (Presidential Address, Zoology Section).

CHAPTER IV.

VARIATION IS CREATION NOT EVOLUTION.

ALL attempts to explain Variation have come to nothing. There is no uncertainty about the fact of its occurrence ; but no one can find the cause. The failure to assign it a cause has been just as complete and unqualified as the success in establishing the fact. It is time to look this failure in the face, and ask what it means.

I.

In trying to *explain* Variation, naturalists have always assumed that it *can* be explained. (By “explained” I mean, of course, reduced to natural causes.) But is this not taking a lot for granted ? It is not everything which is capable of explanation. Take the *mind*, for example. John Locke tried to explain knowledge by referring it all to the evidence of our senses. But he failed. The course of philosophy ever since has been devoted to the task of showing how mistaken he was. There are elements in knowledge, which are not contributed by experience to the mind, but by the mind to experience. These elements are the intuitions. It is impossible to explain the intuitions, though nothing can be explained without them. . . . Another example may be found in the *body*. About the middle of last century, Huxley put on the

mantle of Materialism. In his savage, cock-sure style, he promised to express all the functions of the body in terms of matter and force.(a) But there is not a physiologist in the world to-day, who has not realised the vanity of this boast. We all know that the body is a machine ; but we know it is something more. There is an infinite difference between an organism and an organisation ; and it is this, which laws of matter and force cannot possibly account for. It is not mechanical, but vital ; and that is why it eludes investigation. "Of the physics and chemistry of life," said Bateson, in 1914, "we know next to nothing." (b) There are many other examples. They abound everywhere. But I will only refer to one more, namely, the *solar system*. There is a popular superstition, that natural causes can account for all the features of the solar system ; but Sir Isaac Newton (6) did not think so. In his celebrated letters to Dr. Bentley, he points out carefully, that in writing the *Third Book of the Principia*, where he deals with the solar system, he "had an eye upon such principles as might work with considering men for the belief of a Deity." There are certain features of the solar system, he tells us, which "could not spring from any natural cause alone, but were impressed by an intelligent Agent," namely, the positions of the planets, their motions on their axes, their circulating motions around the sun, and the presence of only one sun.

It goes without saying, that natural laws may be found in operation wherever we look. But on looking a little closer, we find something else there too. Plain men call it "the Hand of God." Well then, if there

(a) 16, p. 322.

(b) 3, Presidential Address, p. 11.

are elements in the mind, in the body, in the earth beneath, and in the heavens above, which natural causes alone cannot account for, why is it taken for granted that natural causes alone may account for Variation? There is no good *reason* for doing so. It is one of those idle assumptions which cannot be justified; and there are very good reasons why it ought to be abandoned.

II.

There are *two* possibilities to be considered, not one only: either Variation is a product of *natural* causes, or else it is not. It is either a natural process, or else it is not a natural process, but supernatural. Natural variation is what men of science mean by evolution; and supernatural variation is what the Scriptures mean by Creation. Either, then, Variation is a result of Evolution, or else it was a work of Creation. These are the two alternatives that need to be considered; and being *complete* alternatives, one must be true, and the other must be false.

But although there are *two* possibilities, only one has ever been taken into account! The other has been ignored by all kinds of writers, both religious and irreligious. Here are some representative opinions:

"To-day, the belief that evolution (Variation) takes place by means of *natural* processes is generally accepted." (a)
(By "accepted" he means "taken for granted".)

"In its consistent form Evolution (Variation) leaves no room for a Creator." (b)

"Evolution turns the Creator out of doors." (c)

(a) Prof. T. H. Morgan (7), Columbia University.

(b) Rev. J. Patterson (11, p. 383).

(c) Ibid., p. 134.

"The essential idea of the Evolution theory is uniformity." (a)
In other words, variation could only arise from "causes similar to or identical with forces and processes now prevailing." (a)

In all these extracts, it is taken for granted, that Variation must be a *natural* process or evolution; and the possibility of its being a *supernatural* process, or Creation, is entirely ignored.

But why is it ignored? Has any one proved it false? And why is the other alternative "generally accepted"? Has anyone proved it true? The last chapter supplies the answer! It is still impossible to point out a single instance of contemporary variation; and "as to the *cause* of variation (to quote Bateson again), we are absolutely without surmise or even plausible speculation." Therefore if this alternative is "generally accepted," as J. H. Morgan declares, it has been accepted without evidence, or even the *shadow* of evidence.

But the case is stronger still. Consider these words of Huxley:

"If species have really arisen by the operation of *natural* conditions (evolution), we ought to be able to find those conditions now at work." (b)

"We ought to be able"; but are we? After more than sixty years of diligent seeking, we have failed to find them. We have not found a single sign of such conditions; and the presumption therefore is that none exist. If they are there, "we ought to be able to find them." They cannot be found, because they do not exist.

Why, then, is it taken for granted, that Variation may be traced to natural causes, or, in other words,

(a) G. M. Price, M.A. (12, p. 7).

(b) 17, p. 12.

identified with evolution ? There is evidently no good reason for this assumption. So far from being probable, it is, as we have just seen, improbable in the highest degree.

III.

But uncertainty disappears altogether, when we take the work of Mendel into account. A very simple and concise summary of Mendel's conclusions may be found in the Appendix. In the year 1859, when Darwin published *The Origin of Species*, Gregor Mendel, an obscure Austrian monk, was working in a monastery at Brunn, on the principles of heredity. Six years later, he published his wonderful researches in the journal of a local scientific society ; but nobody took any notice of them till 1900, when Mendel and Darwin were both dead. In that year, the unique value of these discoveries was recognized ; and Research ever since has been merely engaged in clearing up the track which they have blazed. During all this time, the principles of heredity, discovered by Mendel in peas and bees, have been verified repeatedly in other kinds of plants and animals ; and they also apply to man.

It is unnecessary here to enter into details. The main conclusion they point to, is all that concerns us at present ; and it is this : that the hereditary qualities (or "unit characters" as Mendel called them) of parents will not blend in their offspring, even although their offspring may be hybrids. In consequence of this, a generation obtained by the intercrossing of hybrids does not consist wholly of hybrids. Only one half consists of hybrids ; the other half "take after" either of the two parents, but not both of them. In other

words, the *germ-cells* are not hybrids, even when the individuals that produced them are hybrids. They are handed down unchanged from one generation to another ; and—what is even more remarkable—during their multiplication in succeeding generations, they conform with mathematical precision, as Mendel pointed out, to algebraical formulæ. If the progeny of two “pure” (not hybrid) individuals were isolated, and permitted to increase freely between themselves, their kinds and proportions in every succeeding generation (if numerous enough) could be calculated beforehand by algebra ! Even although the process went on for ten generations or ten million, the hereditary factors would continue unchanged. *They are fixed.*

Now, if the factors are *fixed*, the *species* must be fixed. As saith the Scripture, they bring forth “after their kind.” This is the grand result of Mendel’s work : It has set the fixity of species on a solid rock, which can never be shaken ; and it has scattered the fancy that Variation is an evolution.(a)

Well now, if species are fixed, it is equally clear that they *have varied*. But how can that be ? A *real* variation is an individual containing *new* factors ; but an *apparent* variation, such as a “sport,” does not contain

(a) The Federal Council of the Evangelical Free Churches of England has recently published a statement entitled “The Evangelical Faith and the Modern View of Scripture.” On page 2, this statement reads, “Biology has shaken belief in any rigid fixity of species.” It makes other statements, equally unreliable, about Geology. And on grounds like these, it has founded the so-called “new attitude to the Scriptures.” But there is nothing new about it. It is as old as the Scriptures themselves. Is there any of these gentlemen, who will show, in the light of Mendel’s researches, how a species could vary ? Evidently they have never felt the weight of Mendel’s researches, and probably do not know anything about them. It is also evident, that they still attach weight to Darwinism or Natural Selection, the false theory which Mendel’s researches have shattered.

new factors, but only a new arrangement of *old* factors. Now, if the old factors cannot change during succeeding generations, but conform to algebraical formulæ, how could *new* and *higher* factors appear amongst them, the factors which constitute the essential thing in a real variation? Is there any natural cause which could bring new factors into existence, that is, factors which never existed before? New *elements* and new *energy* could not arise in that way; and neither could new factors. They could not possibly appear, unless they were first of all *created*. If they were added at all, they could only be added by One who is able to *make* them. Therefore the proper name for Variation is Creation.

IV.

To sum up, it is certain that species have varied; and it is equally certain that they cannot vary. The work of Darwin shows that they have varied; and the work of Mendel shows that they are fixed. The same apparent opposition has been pointed out in the *Geological Record*:

“As observation shows, not only do most plants and animals now living in a wild state, adhere to their peculiar characteristics with great tenacity, exhibiting barely appreciable changes, even in the course of hundreds of thousands of years; but, furthermore, *fossil* species remain within the limits of a single geological *period* fairly constant. With the beginning of a new epoch or period, however, which is usually indicated in rocks by petrographical changes, a greater or lesser number of species either entirely disappears, or is replaced by closely related, but at the same time more or less different forms. Obviously, therefore, there have been periods, when the process of *transformation*, and the weeding out of organisms, were greatly accelerated; and, following upon these reconstructive periods, long intervals of repose

have ensued, during which intervals *species have adhered to their characteristic form with but little variation.*"(a)

It may therefore be taken

(1) that species have varied,
and (2) that they cannot vary *naturally*. It follows that they must have varied *supernaturally*. In other words, Variation is not Evolution, but a work of Creation.

V.

There is yet another argument based upon the value of Evolution as a working theory of life. False as it is, this theory, particularly the Darwinian form of it (Natural Selection), has succeeded in capturing the popular imagination, chiefly on account of the tremendous *fact*, with which it has always been associated, namely, the Doctrine of Descent. The enemy still obtains a good reception for his tares by sowing them amongst the wheat. By men of science and men of religion alike, the Doctrine of Descent has been painted in all the colours of the evolutionary rainbow; and although men of science have always looked upon the colours as tentative merely, most people, even to-day, make no attempt to distinguish them from the indubitable outlines. In their opinion, the colouring and the outlines are equally authentic; and therefore they believe not only in the Doctrine of Descent, but also in Evolution—that poisonous lie which has fastened itself upon the Doctrine of Descent like a colossal parasite. For multitudes of people, Evolution has become a guiding principle of thought and conduct. "It is the most overworked word," said the late Lord Morley, "in all the language of the hour." It appeals to vain men, because it flatters their vanity.

(a) 2, Introduction, p.4.

To account for all living things, man included, by natural causes alone ; to discredit Christianity and the Scriptures ; to make God Himself superfluous ; to dissolve the very seat of authority, conscience, and intuition in general ; to assure men that the path is all upward ; and to offer them a new gospel—the gospel of “ survival,” or, as the Germans prefer to call it, the gospel of the “ superman ”—all this has made its appeal to unstable, foolish men, and has inflamed their vanity to something like fanaticism. Theologians have applied it to religion, the Bolsheviks to society, and the Germans to international affairs. As a noxious plants sprawls over the ground, smothering the grass, and winding itself like wire around the neighbouring trees, till they all look like prisoners pinioned for the scaffold, so belief in Evolution has laid hold on the time we live in, and has wrapped itself so tightly around every branch of life, that now it seems to be the branches themselves. But just ten years ago, when multitudes of admirers were expecting it to yield a harvest of grapes, lo and behold, it suddenly brought forth war, confusion, and world-wide strife ! It has borne a harvest of darkness, despair, and death ! What then ? If the fruit is evil, the tree is evil ! The time has therefore come to rip it up by the roots, and tear it away.

VI.

It is evident from every point of view, that the Doctrine of Descent does not stand for Evolution, that is, *natural* variation ; but for Creation, that is, *super-natural* variation.

(1) It follows from this, that variation ceased when *creation* ceased ; and therefore it is not in operation at the present time.

(2) It also follows, that a variation was an individual movement and not a mass movement. It always arose suddenly, not gradually. It did not move up an inclined plane of slow, continuous changes, as Darwin supposed ; nor did it take a single leap upwards, as Tradition has always supposed ; but it went forward in a *succession* of leaps, and may be likened to a flight of steps, where the height of each step is small, and the length exceedingly great. It did not advance like a flowing stream, but swept forward in waves ; and, between the waves, it subsided into immensely long troughs of inaction.

The hereditary factors of any species were not all created at the same time, but in instalments ; and, with the exception of the *last* instalment, they were all created before the species commenced its existence. Only one instalment was created at a time. Each new instalment made its appearance in a new individual, who transmitted it to his offspring in accordance with Mendel's laws, and thus became the father of a new species characterised by those factors (*a*).

Every species is fixed and invariable, except for those natural variations within itself, by means of which it becomes modified to suit different circumstances ; but it cannot possibly vary in such a way as to bring a *new* species into existence. A new species could only arise from it, if new factors were *created* in one of its members. There *is* such a thing as evolution, namely, natural variation ; but it cannot produce new species. Every species is the family of one individual, in whom those factors, which distinguish it from the species next before in the line of descent, were all created. All its other factors were inherited.

This is how our own species originated. It sprang

(*a*) See Appendix I.

from the loins of a common ancestor—the first man. Till recently, even this fact was often called in question ; for, while Darwinism was on its trial, the possibility was entertained, that our species arose *gradually*, in consequence of slow, continuous, accidental variations in masses of individuals at the same time ; and imaginative writers have given this notion such a dogmatic form, that even now, when the trial is over, and Darwinism has been found false, it still seems to be deeply rooted in public opinion. But the opinion of men of science would be fairly represented by the following words of E. B. Tylor, the first and foremost of English ethnologists :

“ All tribes of men, from the blackest to the whitest, the most savage to the most cultured, have such general likeness in the structure of their bodies and the working of their minds, as is easiest and best accounted for, by their being descended from a common ancestor however distant ” (a).

In conclusion, the “ factors ” peculiar to man were all created in the *first* man. The rest are those which he *inherited*. But what *are* the factors peculiar to man ? And when, where, and how were they created ? Without attempting to answer too much, it will suffice, for the present, at least, merely to point out, (1) that these factors are pre-eminently spiritual and sexual ; (2) that they were all created in the first man—that is, not the first male individual of our species, for man, properly speaking, is not an individual, but an organism consisting of two “ *differentiated* ” individuals, the male and the female—and therefore the factors peculiar to man were created, partly in our first father, and partly in our first mother ; and (3) that those factors were created in our first parents before birth.

During its embryonic development, every organism

repeats ("recapitulates") its stem-history. It begins as a single cell, and then passes through stage after stage of development in the very order of their occurrence during its stem-history. Similarly, the first man was not only formed on the wheel of stem-history, but formed *again* in his mother's womb. This, indeed, is the meaning of the scriptural word "formed." It is the word of which the participle denotes a *potter* (a), and therefore it is the very best word possible for denoting either the stem-history or the embryonic history of an organism. And this is the word which the Scriptures use. Unlike many of their readers, the Scriptures discriminate very carefully between *forming* and *creating*. Consider Isaiah xlv. 18, for example :

"the Lord that *created* the heavens . . . , that *formed* the earth."

And compare Jeremiah i. 5 :

"Before I *formed* thee in the belly, I knew thee" (b).

It is the same word which occurs in Genesis ii. 7 :

"The Lord God *formed* man of the dust of the ground."

In this passage, the Scripture treats the first man's embryonic development as the *recapitulation of his stem-history*; and therefore it goes back to "the dust of the ground," that is, the place where his stem-history *commenced*. The man himself was *formed*, like every one else, in his mother's womb; but his distinguishing factors were *created* while he was being formed. Accordingly, the Scripture (Gen. ii. 7) proceeds :

"And (He) breathed into his nostrils the Spirit (not breath) of Life (c),

And man became a Living Soul."

(a) For example, Isaiah xxix. 16; xxx. 14; Jeremiah xviii. 2; xix. 1; Zechariah xi. 13.

(b) Cf. Genesis ii. 8, 19; Psalms xciv. 9; Isaiah xxvii. 11; xlv. 2; xlix. 5.

(c) Cf. Romans viii. 2.

The same discrimination is found in the first chapter, too, and indeed everywhere else in the Scriptures. We shall return to this in due course.

The first *woman* was one of the descendants of the first man, either in the second or some later generation, but not in the first (*a*). In accordance with the laws of inheritance discovered by Mendel, she inherited all the first man's hereditary qualities; but she possessed certain qualities which were *not* inherited, namely, the qualities which brought the process of sex-differentiation to its terminus. This process was in reality one side of the stem-history of man: it commenced in the beginning, but only reached completion in the first woman. Like all its earlier stages, this last stage consisted in the creation of new factors; and those factors were created in the first woman during her embryonic development.

Thus the distinguishing qualities of our species were all created in the first man; the rest were all inherited by him. He therefore owed a *double* debt, namely,

- (1) his debt to his Maker,
- (2) his debt to his ancestors.

Variation, regarded as the creation of new factors, was the debt he owed to God; and Descent was his debt to his ancestors.

And the species which arose when the first man was born, is the same species still. It is capable of modifications within itself, and these are abundantly exemplified by the different races which populate the world to-day; but it cannot vary: it is fixed for ever by the laws of inheritance.

(*a*) See Appendix II.

PART II.

CREATION DURING DESCENT
IN THE SCRIPTURES.

CHAPTER I.

CREATION DURING DESCENT IN THE SCRIPTURES.

THIS is a new picture of creation ; but it is true to Nature and true to Revelation. What Nature has revealed to us is

- (1) not Tradition (Creation without Descent),
- (2) nor Evolution (Descent without Creation),
- (3) but something quite different (Creation during Descent).

And this is what the Scriptures reveal, when rightly translated and interpreted.

I.

To begin with, *the Scripture reveals Descent*, that is, the debt which species owe to one another.

The first man was not only the father of a new species, but also, as we saw in the last chapter, the child of older species, and of the oldest species of all, namely, that which commenced with the first organism, "the primordial cell." But his ancestry goes back farther than that ! As Dr. Benjamin Moore, the distinguished physiologist, was showing recently, when he died, man is a descendant, not only of the first organism, but also of "the parent nebula" (*a*). He is

(*a*) The nebula is not to be confused with "the nebula theory." There is no doubt about the existence of nebulae. Hundreds of them have been photographed. But "the nebula theory" is the view that the parent nebula of the solar system consisted wholly of *gases* ; and this view is much criticised.

the last link of an unbroken chain of earth-forms and life-forms, which began with primitive chaos.

And so say the Scriptures : The Bible is a book about God and man ; and therefore it begins with man's creation. But the creation of man began in the *beginning* ; therefore, that is where the Bible begins : " In the beginning," it says, " God created the heaven and the earth. And the earth was waste and void (that is, a nebula), etc." The Bible describes Creation, but not Creation in general ; it confines itself *exclusively* to that part of Creation which lay in a straight line between the parent nebula at one end, and man at the other. It mentions the great changes, inorganic and organic, which took place along that line, and attributes them all to God ; but it completely neglects all other lines ; for it is a story, not of Creation, but of the Creation of *Man*.

The first of Genesis is a detailed picture of these great changes. Beginning with the parent nebula, it mentions first of all (verses 1-10) the *inorganic* changes, that is, those which took place in the elements during their exodus from chaos, and their preparation for life ; and then it proceeds (verses 10-end), but without any break, to mention in order the *organic* changes (" variations "), beginning with the earliest organisms, and ending with man, the last and highest organism of all. And, on completing the picture, it shows that the links of the chain are *genetic* links, by describing them all as "*the generations*" of the *parent nebula* ! This is the title which is set underneath the picture (ii. 4) :

" These are the GENERATIONS of the-heaven-and-the-earth-when-they-were-created, in the day that the Lord God made earth and heaven."

This word "generations" represents the Hebrew phrase for genealogy. It comes from a word meaning to generate or beget. Its root meaning is *descent*; and it therefore means "*steps in descent*." The expression, "the heaven and the earth when they were created," means the parent nebula mentioned in Genesis i. 1, of which verse it is clearly a quotation. This is further certified by the other expression, "the day that the Lord God made earth and heaven," an expression which also harks back to Genesis i. 1, and clearly refers to the *first* "day." The whole verse may therefore be rendered as follows:

These are the GENERATIONS
Of the PARENT NEBULA.

Or thus:

These are the STEPS IN DESCENT
From the PARENT NEBULA.

The point of it all is this:

- (1) that the changes which ended with man on the sixth "day" (age), commenced with chaos on the *first* "day" (age) of the Creation "week";

and (2) that they were all *steps in descent*.

Think of it! After rehearsing all the changes, which took place along a path, whose termini were "the prime chaos" at one end, and man at the other, the Spirit of Truth applied a word to these changes, in order to reveal their relation to one another; and that word means "*steps in descent*"! There are many other changes which the Spirit could have revealed. Starting at the same origin, He could have pictured the changes along *other* paths, and have traced them also to their ultimate termini. But He neglected them all, and confined Himself exclusively to *one* path, namely,

the genealogy of man from "the beginning" (chaos) to the end (Adam). I wonder whether the critics can explain, how it came to pass, that the Spirit chose a word here which reveals everything essential in the Doctrine of Descent! If the word means anything at all, it means that all species have descended from earlier species, which is all that the Doctrine of Descent affirms; and that all the earth-forms developed from pre-existing earth-forms, which is exactly what Sir Charles Lyall demonstrated in his epoch-making book, *Principles of Geology*.

As a rule, this word is used in the Scriptures to *introduce* a genealogy. And it does so here, for it looks not only back over the first part of the story of Man's creation (i. 1—ii. 4), but also forward over the *second* part (ii. 4—25), which is a summary and explanation of the first, and therefore goes over the very same ground. This word, revealing the whole Doctrine of Descent, stands up like a pillar between the first and second parts of the story of Man's creation; and on it, they both swing like a pair of gates. If unhinged from that cardinal doctrine, they collapse and lose all relationship. Descent is the principle, and the *only* principle, which can interpret these two parts consistently, and reveal the beautiful harmony of their relations to each other.

II.

In the second place, *the Scripture reveals Variation*, that is, the debt which species owe directly to their Maker. And it reveals this too in the word "generations," for Descent *implies* Variation. If all the species descended from a common stock, it is evident

that they *varied* during descent. Variation is the corollary of Descent ; and therefore the word “ generations,” in Genesis ii. 4, reveals Variation as well as Descent : that is to say, it reveals the whole Doctrine of Descent.

III.

In the third place, the *Scripture reveals the fixity of species*, for it tells us again and again in Genesis i, that all the species brought forth “ after their kind ” :

“ Herb yielding seed *after its kind*, and tree bearing fruit *after its kind*.”

“ And every living creature that moveth, which the waters brought forth abundantly *after their kinds*, and every winged fowl *after its kind*.”

“ And God made the beast of the earth *after its kind*, and the cattle *after their kind*, and everything that creepeth upon the ground *after its kind*.”

It is revealed here quite clearly, that species cannot vary as a result of *natural* causes, or, in other words, as a result of evolution. Here, therefore, the Scripture anticipates the laws of inheritance discovered by Mendel. What then ? It is clear in Genesis ii. 4, that species *have varied* ; and yet, here in Genesis i, it is equally clear that they have never varied *naturally*. It follows, therefore, that they must have varied *super-naturally*, that is, in consequence of creative power.

IV.

Quite consistently, therefore, the *Scripture refers Variation to Creative Power*. In Genesis i, every new species is attributed to a revival of creative energy. During each succeeding “ day ” (age), new forms of

life leap into existence at the summons of the Creator :

" And *God said*, Let the earth (ground) put forth (R.V.)
grass, etc." (a).

" And *God said*, Let the waters swarm with swarms of living
creatures" (R.V. margin) (a).

" And *God said*, Let the earth bring forth the living creatures,
etc." (a).

According to these Scriptures, the cause of the transmutation of species was not natural (Evolution), but supernatural (Creation).

(a) The meaning is sometimes drawn from these verses, that "the waters" and "the earth" were *turned into* "living creatures." If that were the meaning *intended*, they would have read, "Let the waters *become*, etc."; "Let the earth *become*, etc.; and moreover, the *air* would have been turned into "*fowl*"! Unfortunately, the A.V. uses the same verb ("bring forth") to translate three different verbs in the original. This is rectified in the R.V. as above. There is no doubt at all in the original. The verb in v. 11 occurs only twice in the Scriptures. The next verb (v. 20) means, "Let the waters *swarm with swarms* of, etc." (R.V. margin). It means, that water was the next element to be inhabited, just as air became the habitat of fowl. It means that the new forms of life were aquatic, just as the next lot were aerial, and the last terrestrial. The verb in v. 24 is very common: e.g., Gen. viii. 17, where God says to Noah, "Bring forth with thee (out of the ark) every living thing, etc." Was Noah turned into the animals which he brought forth? Neither was the earth in Gen. i. 24, where the very same word is used.

The reader is recommended to turn up the very important chapter (Appendix III), entitled "The Scriptural and the Geological Succession," which shows the deep difference between the scriptural and the zoological classifications, and the consequent differences between the meanings of their terms. E.g., the scriptural term, "beast of the earth," does not denote the mammals, but *any* land animals, including reptiles and flightless birds, and excluding the bat (a *flying* mammal); the term "*fowl*" in Scripture does not denote birds, but *any* animal that flies, including mammals (bats) and certain extinct reptiles (pterosaurs), but not birds which are flightless (ostriches). Similarly, the term "grass" (Gen. i. 10) must not be interpreted botanically but scripturally. It denotes *every* vegetable form of life, megascopic and microscopic, multicellular and unicellular, which the earth brought forth in the beginning.

V.

And in revealing Creation during Descent, the Scriptures *correct all the errors of Tradition and Evolution* ; for Tradition affirms Creation, but denies Descent ; and Evolution affirms Descent, but denies Creation ; but the Scriptures affirm both. They boldly reveal Creation during Descent.

In this way, then, they have not only anticipated the greatest *achievement* of Research (the Doctrine of Descent), but have also corrected its greatest *error* (Evolution). If the man of science is asked to-day, what Variation is, he replies, "I do not know." If asked, whether he can find Variation taking place now, his answer is, "No." And if challenged to tell you what he knows about the *cause* of Variation, he says quite frankly, "Nothing !" This complete and unqualified failure offers strong confirmation of the Scriptures, for the Scriptures *explain* it. It is the very failure which *ought* to occur, if the Scriptures are true ; for, in that case, species cannot vary *naturally* ; therefore they never vary *now*, and have never varied *at all*, except by the power of God. According to the Scriptures, Variation is another name for Creation, and the work of Creation *ended with the first man* :

"And on the seventh day, God rested from all his work which he had made. And God blessed the seventh day, and hallowed it : because that in it he rested from all his work which God had created and made."

CHAPTER II.

THE CREATION OF MAN IN THE SCRIPTURES.

THE human species is the family of one father, who was himself the child of older species.

As the *child of older species*, he was the creature of factors which he *inherited*. These factors were all created, but created in others before he was born. He received them from God through his ancestors. As far as *these* factors are concerned, then, his creation goes back at least as far as his *earliest* ancestor, that is, the first organism ; and, therefore, it includes the whole of his *stem history*.

But as the *father of a new species*, he was the creature of factors which were *not* inherited. These are the factors which *distinguished* him from his ancestors, making him a new *species*, and, more than that, a new *universe* ! These factors were created in *him*, not in his ancestors. It was the creation of these factors which actually produced him ; and therefore their creation was his creation. Here, then, is another sense in which man was *created*.

There are therefore *two* points of view, from which the creation of the first man ought to be considered : from the one, it commenced with his *first* ancestor ; from the other, with his *last*. From the one, it covers his *stem-history* ("phylogeny") ; from the other, his *individual history* ("ontogeny"). From the one, it accounts only for the factors which he has *in common* with lower animals ; from the other, it accounts only

for his specific or *distinguishing* factors. It follows, therefore, that if a true and complete account of creation were to be written, it would do justice to the creation of man in *both* these senses. On the one hand, it would give his *stem*-history, treating it as the process of "*forming*" man; and on the other hand, it would give his *individual* history, treating it as the last creative act of his stem-history, or, in other words, showing how the qualities peculiar to man were all created in the first man, while he was being formed in the womb. To make the account complete, it would introduce the stem-history with a history of the earth, thus linking man back to the parent nebula by a chain of continuous "generations."

This is exactly what the Scripture does here in Genesis. As we saw above, it reveals creation in two parts:

(a) 1, 1—ii, 4;

(b) ii, 4—25.

This double treatment is a *necessity*, if the Doctrine of Descent is the subject revealed. From any other point of view it would be unintelligible. This, of course, is the reason why it *seems* unintelligible to many people. Well now, each of these two parts goes over the very same ground; and this is not creation in general, but, as we saw above, the creation of man. They both neglect the branches and laterals of creation, and give their whole attention to the main trunk, the creation of man. So they each begin "in the beginning"; they each proceed to show how the earth was prepared for life; they each show how life commenced with the dust of the ground, and was carried forward in stages to its consummation in man, every stage being introduced by a new exertion of creative

power; and, in the case of the *last* stage, they each tell us exactly what it was that was created, namely, the qualities peculiar to man. There are, therefore, two points of view, from which the creation of man is regarded in each of these passages, namely, (1) his *stem*-history, which begins with "the dust of the ground" (i. 11, and ii. 7), and even runs back farther than that, to the star-dust of the parent nebula; and (2) his *individual*-history, that is, the *last* stage of his stem history, the stage which begins with his *last* ancestor, not his first, and therefore does *not* begin with "the dust of the ground" [i. 27, and ii. 7 ("and breathed, etc.")]

But there is also a *difference* between these two passages, for they aim at different *objects*. It is here where the need for a double account becomes evident. The *first* (i. 11—ii. 4) was written to show *how* man was created, and therefore it paints the *details* of the process. But it is the object of the second (ii. 4–24) to explain *why* he was created; therefore, it does not repeat the details of the first part, but treats them all as stages of a whole—the process of manufacturing a man out of a nebula; and it only enters into details in the *last* stage of the process; for it is there, in that stage, where the end and object of his creation come to light. For this reason, then, the second part *summarises* the earth-history and the stem-history which the first part gives in detail: the one it regards as the process of forming the earth out of the dust of the nebula (vv. 4–6); the other, as the process of forming man out of the dust of the earth (vv. 7–8); but on coming to the *individual* history, which the first chapter presents in the bud only, it opens out into a general exposition, unfolding all the petals, and occupying the

rest of the chapter right to the end; and thus it reveals the chief end of man. The following table will make this clear.

<i>The Creation of Man.</i>		<i>Genesis i.</i>	<i>Genesis ii.</i>
Considered as his Stem History	Inorganic Organic	1-10 (detailed) 11-27 (detailed)	4-6 (summarised) 7 [summarised ("And the Lord God formed man . . . ground.")]
Considered as his Individual History		26-30 (summarised)	7-24 [detailed ("And breathed into his nostrils etc. . . shall be one flesh.")]

Both these chapters may therefore be divided into three parts, namely,

- | | |
|--------------------------------|-----------|
| (1) the earth-history | } of Man. |
| (2) the stem-history | |
| and (3) the individual history | |

Let us take these in order :

I.

The earth-history occupied the first three "days" (a) of the creation "week" (a), and they are detailed in the first ten verses of chapter i; but in chapter ii (vv. 4-6), these steps are all embodied in the following composite picture of the developing earth during that time :

(a) See Appendix III, p. 146, note.

“These are the generations (offspring) of the heaven and the earth (at the time) when they were created (and were therefore nebulous), in the day that the Lord God made earth and heaven (that is, the *first* day). And (during that and the other two “days” of inorganic development) no *plant* of the field was yet in the earth, and no *herb* of the field had yet sprung up: for the Lord God had not caused it to rain upon the earth, and there was not a *man* to till the ground, but there went up a *mist* from the earth and watered the whole face of *the ground*.”

Quite evidently, this is a picture of the developing earth from the time when it appeared as a knot of star-dust in the parent nebula [that is, on the *first* “day” (a)] to the time when dry land [“the ground” (v. 6)] made its appearance [that is, on the *third* “day” (b)] ; for throughout these three “days,” the surface of the cooling earth was hot ; and therefore, as we are told, “there went up a mist (*steam*) from the earth.” It was too hot to rain, and therefore the Scripture reads, “the Lord God had not caused it to rain upon the earth.” Accordingly, it was unfit for life in its highest form (man) ; therefore “there was not a man to till the ground.” It was also unfit for life in its lower forms [“grass” and “herb” (c)], therefore “no *plant* of the field . . . and no *herb* of the field had yet sprung up.” All this truly portrays the cooling earth from the first “day,” when it was nebulous, to the third “day,” when it had not only received form, but dry land appeared, and the first living forms were introduced. In short, it begins with the genesis of matter and ends with the genesis of life ; and therefore it is a picture of the earth during all the inorganic stages recorded in the first ten verses of chapter i.

(a) Chapter i. 1.

(b) Chapter i. 9-11.

(c) Chapter i., 11

II.

The *stem-history* of man is simply the first man's *genealogy* from the beginning. It covers all his ancestors. In one direction, it stretches back to the first organism or organisms which appeared on the earth; and in the other, it ends with the first man. It includes the whole chain of generations which linked these termini together.

If this chain could be examined, a link would be found in it here and there at long intervals, consisting of an individual in whom new factors were created. These were the individuals which initiated new species. They represent the true "variations"; but instead of arising from "evolution," as many biologists, misled by materialism, are apt to imagine, they mark the great revivals of creative power. The first man was the last variation of all. In him the curtain fell on the drama of creation. Therefore, the stem-history of man includes all the renewals of creative energy, from the genesis of life, when the first organism was created out of inorganic elements ("the dust of the ground"), to the genesis of mankind, when everything distinctively human was created.

Of this, too, there is a *double* account in the scriptural story: one in the first part (i. 11-26), where it is revealed in *detail*; the other in the second part (ii. 7), where it is summarised and treated as a *whole*, namely, the process of forming man of the dust of the ground. There are these two accounts, then; and the Doctrine of Descent reveals their relation to each other. It shows the *right* of the second part to sum up all the details of the first part in a single process. From any other point of view, no relationship whatever can be

recognized between them ; and this is the reason why they appear hopelessly inconsistent to people who have never recognized the scriptural point of view.

Now, in each part of this double account, the stem-history begins with "the dust of the ground," and ends with "man." In the *first* part, it begins with these words (i. 11) :

"And God said, 'Let the *earth* put (R.V.) forth grass, etc.'"

And it *ends* there with these words (i. 26) :

"And God said, 'Let us make man, etc.'"

But in the *second* part, where all this is summarised, it begins thus (ii. 7) :

"And the Lord God formed man of the dust of the ground,"

And it ends thus (ii. 7) :

"and (He) breathed into his nostrils the Spirit (not breath) of Life, and man became a Living Soul."

In both parts, therefore, the stem-history begins with earth and ends with man.

Moreover, the transition from the one to the other is represented in each part of the account, not as an instantaneous process, but as a prolonged process, punctuated at great intervals by discontinuous acts of creation. In the first part, these acts of creation, and the species they produced, are enumerated one after another from first to last ; but in the second part, they are all expressed in a single word—the verb "formed." Too often, this word is mis-read as follows :

"And the Lord God *created* man of the dust of the ground."

In this mangled state, the passage is supposed to contradict the Doctrine of Descent ; but not with very good reason, for even so, reading "created" instead of "formed," it would merely leave the matter

doubtful, whether man was derived from the dust of the ground by *one* act of creation or by *many*. But the Scripture itself leaves no room for any doubt at all ! That word “formed” excludes the possibility of only one act of creation : it necessarily implies a *series* of such acts. Nor is it used capriciously : it is used again in verse 8, and again in verse 19, to sum up the stem-histories of the *lower animals*, which also all descended from the same remote ancestors as we :

“And *out of the ground* the Lord God had (a) *formed* every beast of the field, and every fowl of the air.”

This word “formed” or “fashioned” is the verb of which the participle means a *potter*, the image made so familiar in later scriptures by prophets and apostles (b). How does the potter convert clay into china ? First of all he *prepares* the clay ; then he “*forms*” it ; and finally he gives it the baptism of fire. In order to *form* it, he begins by throwing down an amorphous lump on the revolving table in front of him ; but even then, he does not form it *directly* into the vessel which he has in mind, but comes to his design in *stages*. In the early stages, he works it up and down into various primitive forms ; and, after kneading it thoroughly, he puts it through higher and higher forms, each approaching closer to the form he wants ; last of all, he adds final touches, which realise the end he had in view from the beginning. The first of Genesis is a picture of the Divine Potter making a man. It shows him *preparing* the clay first of all (vv. 1-10), and then *forming* the clay (vv. 11-26), forming it by creative touches into lowly vegetable organisms to begin with, afterwards into animal organisms of successively higher

(a) See p. 74, note.

(b) Isaiah xxix. 16 ; xlv. 9 ; lxiv. 8 ; Romans ix, vv. 20-21.

orders, and finally into man. And throughout the whole process, there was something else on the table besides clay; for every "vessel of clay," even the lowest, contains, according to its capacity, a measure of *intelligence*; but the distinguishing features of *human* intelligence, together with their physical counterpart in the human *body*, were added last of all.

III.

The individual history of the first man introduces us to the *second* sense, in which it may be said that he was created; for it was then, during his development from the egg, that those factors were created which are *peculiar* to man. It was the last link of human stem-history.

In his individual history, or embryonic development, the first man, like every other organism, "recapitulated" his stem-history. There, the work of forming him from "the dust of the ground" was repeated and finished; and there, his distinctively human qualities were created. Creation did not begin at the beginning each time: it always began where it left off last. Free and glorious as it is, Omnipotence never wastes itself; but, like the hand that multiplied the loaves on the mountain side, pays infinite attention to economy, "that nothing be lost." In order to create man, it was only necessary to create his *distinguishing* qualities in the embryo of the first man. It was, of course, an instantaneous process. And, according to the Scripture story, in both parts of it alike, this is what actually happened:

In the *first* part of the story, it is likened to "*the image*" impressed on a coin. The coin owes all its value to the image. But if the image accounts for the

value of the coin, it does not account for the raw materials of which the coin consists, and for their shape. All this is the product of antecedent processes, such as quarrying, milling, smelting, refining, and stamping. It is only after the raw materials have been prepared in this way, and formed into a disc, that they receive the king's image. In like manner, the raw materials of man were hewn out of the pit during his stem-history, and prepared in stages to receive "the Image of God." The work of preparation was completed in the embryo of the first man; and there "the Image of God" was imparted, as it is written (i. 27):

"God created man in his own Image."

In the *second* part of the story, the same meaning is conveyed under the image of a *potter*: "The Lord God formed man of the dust of the ground (formed him in the belly, where his stem-history was "recapitulated" from beginning to end), and breathed into his nostrils (at some stage of his embryonic development) the Spirit of Life, etc." (ii. 7). According to the English versions of this passage (both A.V. and R.V.), the life inbreathed was not spiritual ("the Spirit of Life") but physical ("the *breath* of life"), the idea being, that God made an inanimate clay model of a man, and then filled it with life, that is, physical life. But if that were so, the result would have been a living *body*, whereas it was not a living body, but a living *soul*. As the apostle says (and the inspired interpretation is certain),

"The first man was a living *soul*."

Therefore, the life inbreathed was not physical, but spiritual. His physical life was *inherited*, and is fully accounted for in the preceding clause: "The Lord God formed man of the dust of the ground."

The individual history is revealed, then, in both

parts of the Scripture story. But it is revealed with a difference; for whereas the stem-history is detailed in the first part and summarised in the second, this is summarised in the first part and detailed in the second. It is summarised in the *first* part as follows (i. 27):

“And God created man in his own Image . . .; male and female created He them.”

The *second* part explains the meaning of these two sentences in two *paragraphs*, one commencing at verse 7, after the comma (“and breathed into his nostrils the Spirit of Life, etc.”), the other at verse 18, (“And the Lord God said, It is not good that man should be alone: I will make an help-meet for him.”)

The *first* paragraph (vv. 7–17) supplies the divine interpretation of those words, “created in the Image of God.” It explains what “the Image of God” really is (“a living soul”); how it was imparted to the developing embryo of the first man (“the Lord God breathed into his nostrils the Spirit of Life”); the *inward* effects which followed, namely, spiritual Life (“the Tree of Life”) and a good conscience (“the Tree of the knowledge of Good and Evil”); the *outward* effects which followed, namely, a visible blessing on the earth (“the Garden of Eden”); and, lastly, the condition on which Life would *remain* in the soul, namely, his agreement not to tamper with conscience (“the Tree of the Knowledge of Good and Evil.”) Thus the first paragraph accounts for the spiritual attributes of the father of mankind, and concludes with *the Covenant of Life*.

The *second* paragraph (vv. 18–24) explains the significance of those words, “created male and female.” It therefore begins with *sex-differentiation*—a process which commenced with the stem-history of man, but only reached its terminus in man himself, where it is

therefore "recapitulated" in both sexes alike, during the early stages of development. The last creative act of the process was performed in the developing embryo of the first woman. The second paragraph reveals all this, and concludes with *sex-integration*, or the *Marriage-Covenant*.

So the first paragraph accounts for the spiritual qualities, and the second for the sex qualities, which distinguished the parents of the human race from all their ancestors. It is significant that each paragraph concludes with a *covenant*; the one with the Covenant of Life, the other with the Covenant of Marriage. Neither as a spiritual nor as a sex being can the purpose of God be reached in man, except in these two covenants; and for this reason, the Deity is mentioned in both these paragraphs by his covenant name ("Jehovah") as well as his creator name ("God.") From chapter ii. 4 onward, He is called "the Lord God." But in the first part of the story (i. 1—ii. 4), He is considered exclusively as Creator, and is therefore called "God." Owing to their ignorance of biology, the critics regard this beautiful discrimination as a difficulty!

The following outline tabulates these relations:

<i>The Creation of Man treated as his Indi- vidual History</i>	<i>Genesis i.</i>	<i>Genesis ii.</i>
As a Spiritual Being.	26, 27 ("created in the Image of God.")	7 ("and breathed into, etc.") -17 ("shall surely die.")
As a Sex Being.	26, 27 ("male and female created He them.")	18-24

These passages are too important, and far too wonderful to be dismissed here at the end of a chapter. Some of the principles they deal with are not yet known to the mass of the people, and were never known at all, not even to biologists, till the nineteenth century. We shall therefore return to these passages, taking them separately, in the next two chapters following.

Let us conclude the present chapter by noticing three distinctions between the individual-history and the stem-history of man, all which distinctions would appear in the scriptural story, if it was conceived in the Spirit from the view-point of the Doctrine of Descent.

(1) For one thing, the individual history ought to appear in each part of the story as the *last event of the stem-history*.

(2) For another thing, the individual history should not begin with "the dust of the ground," for it began with the first man's *last* ancestor; but the stem-history *should*, for it began with his *first* ancestor, not his last.

(3) Lastly, it should be said in the individual history (i. 27), that man was *created*, not formed; but in the stem-history (ii. 7), that he was *formed*, not created.

All these discriminations are present. They are the very discriminations which *ought* to be present, if the Scriptures were conceived in the Spirit from the standpoint of Descent. From the traditional or any other standpoint, they are unintelligible.

CHAPTER III.

MAN CREATED "A LIVING SOUL."

Genesis { i. 27 ;
 ii. 7-17.

THE qualities characteristic of man are spiritual as well as physical ; and they were all created in the embryos of our first parents, when God said, " Let us make man." Only the *spiritual* qualities shall engage our attention in the present chapter. We shall briefly consider, in the light of Revelation and Research,

- (1) what these spiritual factors were,
- (2) what effects they produced,
- and (3) how they were conditioned.

I.

Research has never yet ascertained the factors peculiar to man. Strange to say, it has never really tried. It has been so busy trying to *explain* them, that it has never answered the question, what there really is to be explained. In this respect it has been blindfolded by Materialism. As a rule, men of science are ignorant of philosophy ; but many of them love prating about it, and easily fall victims, like Huxley, to foolish fads, which were proposed, examined, and dismissed by competent judges centuries and ages ago.

Philosophy has not advanced very much farther ;

but at least it has *faced* the question ; and, thanks to Kant, it has gone half-way, at any rate, to supplying the answer.

All the lower animals, even the very lowest, possess a measure of intelligence ; and the parents of the first man must have had intelligence of a high order. They probably belonged to *Homo recens*—the species whose drawings, paintings, carvings, and stone implements are found in sediments deposited after the close of the Ice Age. (a) But even *their* intelligence was entirely destitute of those features, which distinguish *human* intelligence, and therefore distinguished the first man.

(1) To begin with, the first man was a *soul* ; and the distinguishing quality of a soul is intuition (to use a term of Kant's), or *the capacity for law*.

If a bar of steel be balanced on a point so as to swing freely, it will come to rest haphazard in *any* direction. But if the bar be taken off the point, placed in a dynamo for a few moments, and then restored to its former position, it will set infallibly in the meridian of the earth's magnetic field. While it was in the dynamo, it became magnetised. In a spiritual way, this is the difference between human and animal intelligence. Human intelligence, or the soul, has a faculty of intuition, which renders it responsive to the pull of the poles of Right and Wrong, and compels it to seek the meridian of Truth or Righteousness. But the lower animals do not possess this faculty, and therefore they are incapable of mental or moral orientation. They help us to form an idea of the kind of steel, or the raw material, let us say, which

(a) It is estimated that the ice-sheet disappeared from Great Britain and Scandinavia about 10,000 years ago.

the first soul was made from ; and they help us to understand some stages in the long process of preparing it. During this process—our "stem-history," as it is called elsewhere—the Creator was preparing the steel, and getting it balanced on the point of intelligence. But when the time came to create man, He thrust the steel into the dynamo, and endowed it with the magnetism of spiritual intuition. The first man therefore had in himself "the knowledge of Good (Truth) and Evil (Falsity," and felt in himself the everlasting obligation to choose the Good. This is what made him capable of reason, capable of morality, and (as Wesley used to say) "capable of God." It made the distance which separated him from even the nearest of his ancestors, *infinite* ; for it constituted him not only a new species, but also a new universe !

It is impossible to *prove* the intuitions ; but without them it would be impossible to prove anything. They are not the fruit, but the root of reason. They wash the shores of human experience ; but they spread out far beyond, like the boundless ether. They are unsearchable.

But although it is impossible to prove them, all men *believe* them, even those men who feel obliged by the false premisses of foolish philosophies to disbelieve them. These sophistical dreamers feel as sure of them as anybody else, as soon as they forget their philosophies.

Nevertheless, it is possible to tamper with this compass in the soul. We may consult it with lodestones of self-interest in our hands. But when free from interference, it points out the Law or Will of God, and asserts the sovereign right of this Will to enthrone itself unconditionally over the will of man. For this

reason, the Apostle calls it "the law written on the heart," written there by "the finger of God," and revealed there in moments of reflective consciousness. This, then, was the first distinguishing quality of the father of mankind.

(2) But Law by itself is incomplete. Like a piece of machinery, it cannot work without steam; like a lamp, it cannot shine without oil; and like a ship, it cannot sail without water. Now the steam, the oil, the water, needed by Law, is *Life*.

Just as the elements have marvellous properties, which life and life alone can call into action and exhibit, so nothing but Life can satisfy the soul's capacity for Law. Consider a drop of water: all the molecules are moving independently in straight paths of their own, colliding and rebounding endlessly. They have no centre of organization; they are entirely self-centred, and therefore entirely incapable of team-work. What anarchy! What chaos! But if a drop of water enters an organism—a blade of grass, say—it becomes a new substance and acquires a new nature, the *living* substance and nature of the grass! Instead of being self-centred, the molecules of this new substance are all *life-centred*; and instead of anarchy, they have fellowship one with another in the unity and team-work of the organism. Even so, the soul, if it has no life, is *self-centred*, that is to say, self-willed, self-loving, self-opinionated, and self-righteous. As the Apostle says, "It is not subject to the law of God; neither indeed can it be." In the language of the New Testament, it is "carnal." But, if it obtains Life, a great change takes place, like the transformation of the elements when they pass from death unto life during the process

of assimilation by plants or animals. In passing from death unto life, the soul anchors in God, and (to use New Testament language again) it becomes "spiritual." Formerly, it was inorganic like the air or the ocean, but now it is organic. What a change ! It is infinite ! There is no language which can express it. But, vast and wonderful as it is, it all arises from this, that the Life fulfils the Law. Without the Life, the soul is lawless.

And Life not only fulfils Law, but *transforms* it. Apart from organisms, law reigns as "the Law of Death" ; but in organisms, it reigns as "the Law of Life." And this is true spiritually. As the Apostle says,

" *The Law of the Spirit of Life in Christ Jesus hath made me free from the Law of Sin and Death.*"

Ruthless and destructive is the law of death. As it rules the elements, it makes itself heard in the tumult of the storm, the ferocity of lightning, the clamour of thunder, and the shock of earthquakes. At Sinai, it was revealed to Moses in circumstances so awful—namely, the darkness, the storm, and the earthquake—that Moses said, "I exceedingly fear and quake." But the Law of Life is gentle and constructive. It works in harness lighter than air and softer than silk ; and rules its kingdom (the organism) in perfect silence. But for all that, it works and rules there with energy as irresistible as the forces which roll the tides around the earth, and the planets around the sun. There is power enough in a mushroom to shatter a pavement ! Similarly, in a spiritual organism, Law speaks no longer in the iron language of force, but in gentle, constraining accents of the Life which fulfils it, the Life or Spirit of God. Life employs light,

not lightning ; and yet it is "mighty through God to the pulling down of strongholds."

So then, Life fulfils Law by converting the soul into a "*spirit*," that is, "a *living* soul" or "a spiritual *organism*." Without Life, Law is not fulfilled, and cannot be. A dead soul is necessarily "dead in trespasses and sins." It can only perform self-interested or "dead works." It is lawless. With great propriety, therefore, the Scriptures describe "a living soul" as "the Image of God"; and they explain that this Image is imparted to the soul by "the Spirit of Life." Genesis i., for example, reads :

"And God created man *in His own Image*."

And Genesis ii explains this :

"And (He) breathed into his nostrils *the Spirit of Life*, and man became a *living soul*."

"The Image of God" is not a soul, but "a living soul."

During the present age, *Christ* has become "the Author of Life." He is essentially a spiritual organism ; and therefore He too is described as "the Image of God." (a) Moreover, "the Spirit of Life in Christ Jesus" transforms believers into living souls by making them members of His mystical "Body" or "Church"; and therefore they too are called "the Image of God!" (b) But although this Life is restored to us by "the last Adam," it was *introduced* in "the first Adam." As it is written :

"The first Adam was made a living soul ; the last Adam a life-giving spirit." (c)

To sum up, there are two hemispheres in "the Image of God," namely, (1) Law and (2) Life. Law

(a) 2 Corinthians iv. 4 ; Coll. i. 15.

(b) 1 Cor. xi. 7.

(c) 1 Cor. xv. 45.

may exist without Life, but not Life without Law. Life is not included in Law, but Law is included in Life; and therefore they were *both* imparted to the first man, when "the Lord God breathed into his nostrils the Spirit of Life." These are the elements which distinguished the intelligence of the first man from that of his parents.

II.

Now the spiritual Life of the first man had two effects: one inward, the other outward; the first a blessing in his soul, the second a blessing on the earth. These were concomitant results of the same cause; and therefore they were appointed to stand or fall together.

(1) *Inwardly*, then, he "became a living soul." This Life converted him into (what Goethe used to call) "that living, glorious, precious thing, the organism"; and therefore it endowed him with a nature, which (in the words of the Apostle) "cannot sin"! (a) For *practical* purposes, the organism is perfect. It is the masterpiece of Creation. It crowns the universe. And the first man was not only a physical, but also a *spiritual* organism. No wonder the story of Creation concludes with these words:

"And God saw everything (including the first man) which he had made, and behold, it was *very good*."

This life is the only hope for mankind. Just as plant life saved the earth from becoming "a sterile promontory," as barren, silent, and desolate as the moon

(a) 1 John iii. 9.

itself ; just as it covers the earth with glory, decking it with flowers, and filling it with fragrance which it manufactures in the secret machinery of innumerable myriads of leaves and petals ; so spiritual life delivers the soul, and fills it with "the fruit of the Spirit." Without it, society is sure to become

"outrageous as a sea, dark, wasteful, wild."

But the Life makes all things new. Nothing else can "make new Heavens and a new Earth." And this was the blessing in which the human family was cradled by its Maker.

(2) But spiritual Life brings *outward* as well as inward prosperity. It transforms not only the soul, but also the material circumstances of a man. *Twice* blessed is the man with Life in his soul :

" (*inwardly*) he shall be like a tree planted by the rivers
of water,

and (*outwardly*) whatsoever he doeth shall prosper."

The first man enjoyed this *double* blessing. Not only was his *soul* "like a garden, and like a spring of water whose waters fail not," but this spiritual garden inside the man was answered outside by a visible, material garden. The very *earth* was blessed for his sake :

"And the Lord God [had (a)] planted a garden eastward
in Eden ; and there he put the man whom he had formed."

Then and now, the secret at the heart of permanent, outward prosperity is spiritual ; the secret of everything spiritual is spiritual *Life* ; and the secret of this

(a) "When in translating into English, the sense of the context requires it, a Hebrew verb consecutive imperfect has to be rendered in the pluperfect, as for instance in Zech. vii. 2 (A. and R.V.)" ("Vindication of the first Three Chapters of Genesis" by D. MacDonald, D.D., p. 13.)

Life is its capacity to *fulfil the Law*. In order to make this clear, the next verse (9) re-paints the garden of Eden, the garden whose trees grew "out of the ground"; and it draws attention to two trees of a *different kind* "in the midst of the garden," trees which grow only in the "good ground" of "a living soul." These two trees represent LIFE and LAW, the two vital factors of "a living soul," the two hemispheres of "the Image of God." In a word, they represent the first man as a spiritual being. Their central position indicates, that *he* was the real secret of the blessing on the earth. Outward and inward prosperity are one. Though the one is visible and the other invisible, they proceed from the same source, spiritual Life. Accordingly, the Scripture reveals their unity by representing the *spiritual* factors as "*trees*," and by leaving them unseparated in the picture from the *material* trees of Eden. A further result of using these biological images is this: It reveals the *vital* or *spiritual* character of "the Law of Life," and keeps it distinct from "the Law of Death," which is inorganic or carnal:

"And out of the ground made the Lord God to grow every tree that is pleasant to the sight and good for food (namely the visible trees of Eden); the Tree of Life (spiritual Life) also *in the midst* of the garden, and the Tree of the Knowledge of Good and Evil (spiritual Law)."

In the beginning, then, Paradise was planted here visibly on the earth; but it had a spiritual *centre*, namely, "a living soul," a man made in "the Image of God." The day is at hand, when Paradise shall be planted again here on the earth. In that day, "shall Jacob take root; Israel shall blossom and bud; and they shall fill the face of the world with fruit." And

of this Paradise, too, the secret in the midst shall be a spiritual organism, that organism of which "the last Adam" is "the Head," and the Church is "the Body." As the Apostle says, forecasting this future Paradise,

"*In the midst of the street of it . . . (I saw) the Tree of Life . . . , and the leaves of the tree were for the healing of the nations.*"(a)

To replant this spiritual organism was the object of Christ's first coming. To surround it with Paradise—a terrestrial and visible Paradise of divine government—will be the object of His *second* coming.

Spiritual Life must yield both these aureoles of blessedness—the one spiritual, the other material—before it reaches the *full* volume of its ministry to mankind. The *material* blessing still tarries, because the spiritual has not yet reached its full stature. But so great is the desire of Providence that man should enjoy them *both*, that he gave them both to the *first* man, as soon as he was created.

Many interpreters of this passage have manufactured imaginary difficulties by neglecting the all-important fact, that Paradise was a *material garden* with a *spiritual centre*, namely, a "living soul," a soul where Law ("the Tree of the Knowledge of Good and Evil") is fulfilled by Life ("the Tree of Life.") They either materialise what was spiritual ("the Tree of Knowledge" and "the Tree of Life"), or else they spiritualise what was material (the trees of Eden). In either case, they turn the account into foolishness, and force their

(a) Rev. xxii. 2.

followers, either to treat it as a myth, or else to reject it altogether.

On the face of it, "the Tree of the Knowledge of Good and Evil" ought not to be taken as a *material* tree. Is "knowledge" material? Is "good" material? Is "evil" material? There is only one "tree" which can bring forth "the knowledge of good and evil"; and that is the intuitive faculty of "a living soul." Moreover, if "the Tree of Life" had been a vine or something of the sort, it would have perished long ago. Why then does it turn up again in the *last* pages of the Bible, where it represents undoubtedly the Kingdom of God, that is, a spiritual organism whose Head is "the last Adam" and whose Body is the Church? Is there any *other* "tree" which shall flourish at the heart of the Paradise to come? Is not "the Christ" the only tree whose leaves will heal the nations? (a)

But if Paradise had a spiritual *centre*, it is equally clear

(a) It is *unscriptural* to take "the Tree of Life" *literally*. For instance:

(1) The Scriptures personify trees (Judges ix. 8-48).

(2) They use trees to represent men as spiritual beings (Psalms i. 3, Matt. iii. 10, vii. 17-19).

(3) They use trees to represent "the Kingdom of God," which is also an organism, only spiritual. (Matt. xii. 33; cf. John xv. 1; Matt. xiii.)

(4) They *always* use "the Tree of Life" to represent a spiritual organism, *never* a material organism. They therefore apply it *exclusively* either to

(i) the first Adam (Genesis ii. and iii.),
or (ii) the last Adam [Prov. iii. 18 (cf. 1 Cor. i. 30-31), xi. 30 (cf. 1 Cor. i. 30-31), xiii. 12 (cf. 1 Cor. i. 30-31), xv. 4 (cf. Rom. iii. 13), Rev. ii. 7 ("The Tree of Life which *is* (*now*) in the midst of the Paradise of God.") (Cf. Rev. xxii. 2, 14.)]

(5) They employ the word "*every*" in Genesis ii. 9 and 16. If this word is emphasised, and it ought to be, it excludes "the Tree of Life" and "the Tree of Knowledge" from being reckoned amongst the trees of the garden. It presents them as "trees" *in another sense*.

Now if "the Tree of Life" is a figure of something spiritual, so is "the Tree of Knowledge," and so is "the Serpent." Cf. Rev. xxii. 2: "that old Serpent which *is* the Devil." Clearly, "the

that Paradise *itself* was not spiritual but material. It consisted of the plants and minerals of the richest plain in the world, the flood plain of the rivers of Mesopotamia. To put this beyond doubt, the Scripture proceeds to give geographical and mineralogical particulars as follows :

“ And a river went out of Eden to water the garden, and from thence it was parted, and became four heads (tributaries up-stream). The name of the first is *Pishon* : that is it which compasseth the whole land of Havilah, where there is gold ; and the gold of that land is good : there is bdellium (ruby or garnet ?) and the onyx stone (beryl). And the name of the second river is *Gihon* : the same is it that compasseth the whole land of Cush. And the name of the third river is Hiddekel (*Tigris*) : that is it which goeth in front of Assyria. And the fourth river is *Euphrates* ” (Gen. ii. 10-14).

Notice, too, that Eden lay “ eastward ” (ver. 8) a little from *Palestine*, which is the geographical centre of the earth. It was therefore the ideal centre of dispersal for a new race. Here, then, in this strategical region, man was created ; here, too, in later times, the elect people were settled ; here “ the Tree of Life ” was replanted in “ the last Adam ” ; here Paradise shall be restored when “ the last Adam ” returns ; and from hence it shall stretch forth and enclose “ the uttermost parts of the earth.”

Such is the infinite value of spiritual Life. It transforms the soul ; and soon it shall find its echo in a transformed world.

Serpent ” was not a snake, or, it would have died long before “ The Revelation ” was written. But Scriptures notwithstanding, there are some who would burn and be burned for the fancy, that the Devil was *in* a snake, and that snakes never went on their bellies till man was created, though the snake is by hypothesis a *limbless* reptile, and tolerably complete specimens have been found in the miocene beds of Germany, not to mention typical vertabræ in the eocene beds of England, France, Switzerland, and North America,—that is, beds which were laid down *ages* before the creation of man. [*Text Bk. of Pal.* by K. Zittel, Vol. II. pp. 164-5].

III.

But if the first man had this Life, why was it not secured? This is the question which now arises, and which the Scripture goes on to answer (vers. 15-17).

We are dealing with Life; something which has no existence except in organisms, and cannot exist even in organisms, except on certain conditions. These conditions are, of course, *biological* in character, and therefore as fixed and inexorable as the laws of light or motion. Given these conditions, the Life remains; but otherwise, it vanishes. It is not like oil, which may be sealed securely in a cylinder; or like jewels, which may be locked up in a safe. Rather it is like the current which lights an electric lamp: unless *all* the conditions are granted, the current refuses to circulate; and without the current, the lamp cannot give any light.

As we saw above, it is the function of Life to fulfil the Law; that is, to build and maintain the organism; or, in other words, to life-centre what is self-centred or lawless. The Life will remain in the organism, so long as it has the freedom to carry out this work; but no longer. It cannot remain where it cannot work. This is the covenant of Life. If a plant, for instance, were to lose its water supply, the life, being deprived of essential building materials, would be unable to keep on building; and therefore it would vanish. The same fatal result would take place if the plant were shut away from the light, the source of all its energy; or if it were overwhelmed by parasites, the *thieves* of its energy. The plant would lose its life, or *die*. Similarly, if *self-will* arose in a spiritual organism ("a living soul"), refusing to be effaced, the Life would lose its freedom to fulfil the Law (the Will of *God*), and there-

fore it would depart. The soul cannot be self-centred and Life-centred at the same time. In a spiritual organism, either the Life effaces self-will, or else self-will effaces the Life; and if the Life is effaced, the organism is said to die. This is *the covenant of Life* as applied to a spiritual organism.

Of the power of Life to efface self-will in a living soul, the Apostle left an example, when he wrote :

“ I live, yet no longer I, but Christ liveth in me.” (a)

And of the power of self-will to efface the Life in living souls, he warned the Galatians, when he wrote :

“ If ye receive circumcision (the gospel of self-righteousness) Christ will profit you *nothing* . . . Ye are brought to *nought* (R.V. margin), ye who would be justified by the law: ye are *fallen away* from grace.” (b)

The Head of the Church applied the covenant both ways to *all* believers :

“ If any man would come after me,” said he, “ let him deny (efface) himself, and take up his cross and follow me. For whosoever would *save* his soul shall *lose* it; and whosoever shall *lose* his soul for my sake and the gospel's, shall *save* it.” (c)

And the same covenant was revealed to “ the *first Adam* ” in the following terms :

“ And the Lord God took the man, and put him into the garden of Eden to dress it and to keep it. And the Lord God commanded the man, saying, Of every tree of the garden (the trees of Eden) thou mayest freely eat: but of the Tree of the Knowledge of Good and Evil (Conscience), thou shalt not eat of it (tamper with its verdicts as if they were the fruit of reason, and not its root); for in the day that thou eatest thereof, thou (as a spiritual, not physical organism) shall surely die (lose the Life, and therefore the Image of God, in the soul).” (d)

(a) Gal. ii. 20.

(c) Mark viii. 34-35.

(b) Galatians v. 2-4.

(d) Genesis ii. 15-17.

CHAPTER IV.

MAN CREATED "MALE AND FEMALE."

Genesis { i. 27 ;
 ii. 18-25.

FOR ages the origin of the first woman has been wrapped in the artificial mystery of a glorified rib. Grotesque and absurd as it is, this hoary notion is supposed to be rooted in the Scriptures. It has indeed been nourished by the English translations of the Scriptures ; but there is nothing about " ribs " in the Scriptures themselves. Generally speaking, our versions are marvels of accuracy ; but so thoroughly biological is the subject-matter of these two passages in Genesis, that only one who is familiar with biological principles can see what they refer to. The Scriptures make the allusion, but leave it for Research to find the interpretation. And now, at last, in our time, Research has rendered this service.

The work of Mendel makes it quite clear, that the first woman must have been one of the first man's offspring, either in the second or in some later generation. (See Appendixes 1 and 2.) None of his other female descendants, up to the time of her birth, had inherited wholly from him. Either they had derived from him in part only, or else not at all : in other

words, they "took (more or less) after" his consorts. To use Mendel's terms, they were either "hybrids" or "pure recessives." They were therefore void of those spiritual instincts, which had been planted in the first man; and they were therefore *incapable of covenants*, especially the covenant of *marriage*. The first woman was the first female who inherited wholly from the first man. To return to the language of Mendel, she was the first female "pure dominant." Her characters were all derived from her first father, and therefore she was as capable of marriage as he. Therefore, when the first man saw her, he forsook the consorts with whom he had associated at first, according to the customs of the tribe in which he had been born; and, accepting her, as the Scriptures say, in the covenant of marriage, they became the parents of the human race.

Now the first woman had other qualities than those which she inherited. The *sex*-qualities, which distinguished her as a woman from all her female antecedents, were not inherited: they were *created* in her developing body before birth. Just as the characteristic qualities of man were all created in the first man, so those of the woman were all created in the first woman. It was not in the first man, but in the first woman, where the work of creating man came to an end; for man is not a person, but an organism consisting of *two* persons; and, as the Apostle says, with characteristic fidelity to its biological nature, "the man is the head of the woman."

There are two features of an organism which always move considering men to wonder. It is impossible to account for them by mechanical principles. They are exclusively vital. One is the *diversity* in the parts of

an organism ; the other is their *unity*. Consider a tree, for example : it consists of such diverse parts as wood, bark, leaves, fruit, roots, etc. ; and these all perform different functions. But for all that, they are joined together structurally in such a way, that the tree as a whole exhibits graceful symmetry ; and they are so federated in their functions, that it acts as one. To use technical terms, the tree has been

(1) "differentiated" (made diverse) ;

and (2) "integrated" (made one).

But although the tree has been differentiated so extensively, it originated in a cell which was not differentiated at all. During development, however, when the cells were multiplying, some became grouped together and specialised for one purpose, others for another purpose, and so on, till at last they were all grouped and specialised in different directions. At the same time, however, the other process kept knitting them together, and federating their activities into a single plan of action. In this way, the unity of the organism as a whole was not ruined or even impaired by the increasing diversity, but, on the contrary, preserved and improved. The more numerous and diverse the parts of an organism, the more highly they unite. The greater the diversity, the higher the unity. It is the whole object of "differentiation" to secure "integration" at higher levels.

The division of labour in an organism results in very great advantages : for one thing, it saves waste of effort ; and for another, it secures improved efficiency. In animal organisms, where the division of labour goes very much farther than in plants, these advantages are proportionately higher ; and in man—the terminus of the process—they reach their highest. But there

is one direction, where it goes much farther than any other, even in man. In this direction, it produces two differentiated *persons*, that the twain might reconstitute man by uniting in a covenant, which nothing but death can dissolve, because it represents the unity of an organism. Here, then, in this covenant, "differentiation" has reached its farthest, and "integration" its highest. No other type of unity in the visible world is equal to this. It stands alone.

Now the development of an organism from the seed or the egg is simply the "recapitulation" of its stem-history. From first to last, then, the stem-history of man was a process of differentiation; and, along one strand, it was a process of "sex differentiation." This is the process which ended in the first woman. It ended with an act of creation in the developing embryo of the first woman. And where sex-differentiation ended, sex-integration, or the covenant of marriage, began.

This is the subject of the parallel passages in Genesis i. and ii. The one passage (v. 27) gives the outline only; and the second (vv. 18-24) fills in details. In both cases alike, it is the same picture—a picture of creation in a background of embryology. The heart and centre of the picture is simply a revelation of these two principles:

(1) sex-differentiation,
and (2) sex-integration, or the covenant of marriage. And the incontestable fact is also revealed, that the first of these principles is the biological, and therefore the only, foundation of the second.

Let us now proceed to consider, first of all, the working of these two principles; and then we shall see how they are revealed here in the Scriptures.

I.

Sex-differentiation needs to be considered in two aspects, namely :

- (1) as it took place during our *stem*-history,
- and (2) as it takes place again during our *personal* history, that is, our development from the egg.

We shall take them in order :

1. *The stem-history of sex-differentiation* goes back in its beginnings to the first organisms which appeared on the earth. These organisms consisted of a single cell, and therefore they were not differentiated at all ; in this respect they resembled the lowest organisms to-day. These multiply by *division*. Each one grows to maturity, and then divides into *two* cells, which separate as two distinct *organisms*. But even in some of *these* lowly forms, rudimentary traces of sex-differentiation have been noticed.

Later on, came higher animals, consisting of *many* cells, and belonging to the same phylum as modern forms like the hydra, the coral, the jelly-fish, the sponge, etc. In these animals, some of the cells were specialised and set apart for the sole purpose of forming new individuals ; and, what is more, these cells were further specialised into two kinds, male and female ; but both kinds were developed in the same individual.

Later organisms initiated a further advance, which modern forms like the flat-worms may serve to illustrate. In these animals, not only two kinds of special cells, but also two kinds of special *structures* were developed, the cells and structures of one kind being

associated together and separated from those of the other kind. But here again, both kinds were equally developed in the same individual.

At this stage, then, the distinction between male and female was represented by two kinds of *cells and structures*, but not by two kinds of *individuals*; for every individual contained cells and structures of *both* kinds *equally* developed.

The next great advance brought species into existence, where cells and structures of both kinds are still developed in full-grown individuals, but not *equally* developed. They are equally developed in every individual during the *earliest stage of its development*; but afterwards, they develop *unequally*. Only one side reaches *full* development in the mature individual; and this, of course, is the side which determines its gender. The other side also remains, but only in a degenerate condition.

In this way, then, *two kinds of individuals* arose, male and female. Male and female structures are developed in *both* these individuals; but only those of one kind are capable of functioning.

Later advances were all in the direction of *improving* these specialised cells, structures, and individuals. The mammals illustrate the last stages of the process; and this, indeed, is the basis of their classification. For instance, the platypus—which typifies the lowest mammals—lays eggs and hatches them like a bird; but, unlike a bird, it also provides its young with a short period of lactation. On the other hand, the kangaroo—which is representative of the next group of mammals—does not lay eggs, but provides its young with a *long* period of lactation and a short period of *gestation*. The highest mammals (mice, bats, sheep,

monkeys, men, etc.) reverse this : they provide a *long* period of gestation, and a *short* period of lactation.

Each of these advances was initiated, let us remember, in a new individual ; and it consisted of the new factors created in that individual. The last advance of all took place when the new factors were created, which brought *man* into existence. As the first of Genesis tells us : "Male and female created He them." It was in the embryo of the first woman, where the last creative act took place.

Here then is a process, which commenced when life was created in the first cell, and ended when the first woman was created. It was one side of our stem-history, or the work of *forming* man, as it is called in Genesis ii. 7 ; and, although it went forward in many stages, being *carried* forward every time on a new wave of creative power, these stages fall naturally into three main groups :

- (i) one ending with individual organisms which contain cells and structures of two kinds *equally* developed (here the terms "male" and "female" apply to cells and structures, but not to individuals) ;
- (ii) the next ending with individual organisms which contain cells and structures of two kinds *unequally* developed (here the terms "male" and "female" apply to individuals as well as cells and structures) ;
- and (iii) the last ending with man, a being capable of covenants, and therefore capable of the *marriage* covenant, that is, sex-integration—the end and object of sex-differentiation.

On considering this great process as the process of

forming man, it becomes quite evident that man (in the fullest sense of the word) is not a person, but an *organism* consisting of two "differentiated" persons ("male and female").

2. In every human being, the process of sex-differentiation is "recapitulated" in three stages, corresponding to the three mentioned above. This takes place during the development from the egg; and therefore it begins and ends before birth. In this respect, as in all others, every person, whether male or female, climbs the tree of our common stem-history from the bottom to the top:

(i) In *the first stage* (a)—which corresponds to the above-mentioned first stage in our stem-history—both

(a) For the sake of those unacquainted with the principles of Biology, I append the following abbreviated extracts from a well-known work, though the same information may be readily obtained from any other standard work on the subject:

"We have become acquainted in the preceding pages with the first development of the various parts, which constitute the foundations of the urino-genital system. These are three pairs of canals and a great number of glandular structures. It will be my task in what follows, to indicate how the ultimate condition is derived from these fundamentals. . . .

"In a human embryo of eight weeks old, the fundamentals, if we neglect differences which are recognisable only by the aid of the microscope, are so similar in male and female as to be indistinguishable.

"In older embryos, there arise differences between the two sexes, which are visible even externally, and which become more distinct from month to month. These result from fundamental metamorphoses, which the whole apparatus continually undergoes in its separate parts. In connection with this, some originally quite large fundamentals undergo almost complete degeneration; of those which remain, some are serviceable only in the female, others only in the male; when not employed they disappear. . . .

"The metamorphosis of the primitive embryonic fundamentals in the female is in many particulars the opposite of that in the male, inasmuch as parts which are made use of in the latter, become rudimentary in the former, and *vice versa*."—*Text Book of the Embryology of Man and Mammals*, by Dr. Oscar Hertwig, 1899.

sets of structures make their appearance together in the growing embryo ; and for a time, they go on developing side by side at the same rate. During this stage, the organism is *neither male nor female*, for it contains *both* sides equally developed. It ought, therefore, to be called *man* in the full sense of the word ; for, in this sense, man is neither male nor female, but the twain united into a single organism.

(ii) Then a change sets in, and *the second stage (a)* begins, corresponding to the second stage in our stem-history mentioned above. One of the two sides continues developing at the same rate as before ; but the other begins to lag behind in a state of arrested development, and steadily degenerates into " vestiges." Only the first side reaches full development in the mature organism ; and therefore this is the side which determines its gender. The other side also survives in the mature organism, but only in traces and ruins. There are therefore " vestiges " of the male in the female, and of the female in the male. In order to make the woman, God developed the other side of the man ; and in making man, he developed the other side of the woman.

As a result of this change, then, the developing organism may no longer be termed man, in the full sense of the word ; for even if it becomes male in gender, even then it is only entitled to the term " man " in the restricted sense of common usage.

(iii) The third stage—corresponding to the third stage of our stem-history mentioned above—consists in the *completion* of the dominant sex-side, and the simultaneous completion of the organism. And this also

(a) See preceding page.

takes place before birth, though it reaches full development many years *after* birth.

The important point to be noticed here is this : Although the two sex-sides develop symmetrically at first, and then unsymmetrically, the two sides of the *organism as a whole* keep on developing symmetrically from first to last. This results in an organism which is symmetrical in all respects but one, namely, sex. In other words, it becomes a one-sided, but not a lop-sided, organism.

There is another point which needs to be noticed just here : At the time when the two sex-sides begin developing *unsymmetrically*, the shape of the developing organism may be likened very roughly to a rowing boat turned upside down. Let the keel of the boat represent the future back-bone, that is the upper ("dorsal") surface of the embryo ; and let the under part represent its lower ("ventral") surface. As ship-builders lay down the keel first, so the development of the body begins along the future back-bone, that is, the median line of the upper ("dorsal") surface. From this line, the two sides of the organism grow down like the flaps of a saddle ; and eventually they meet and unite underneath, along the median line of the lower ("ventral") surface. Thus the embryo shuts *underneath*, and encloses quite symmetrically the two sex-sides which are developing unsymmetrically within.

To sum up, sex-differentiation is a process, which starts in the embryo during the early stages of development, and is consummated in the covenant of marriage. In other words, it begins with *man at the lowest level* in order to bring forth *man at the highest level* ; and, in both cases alike, man is neither male nor female, but

the twain in one organism. Nothing but death can dissolve the unity of an organism ; and therefore the marriage covenant must be considered indissoluble.

Before leaving this part of the subject, let us notice the different senses in which the word "*man*" should be used from this point of view ; for this is the *scriptural* point of view, and therefore the word will be found here in Genesis bearing each of these senses. It may denote :

- (i) the embryo when it is neither male nor female, but contains *both* sides equally developed ;
- or (ii) the organism which is initiated when two persons unite in the covenant of marriage ;
- or (iii) a person of the male gender.

In the first case, man is the organism from which male and female individuals are derived by differentiation ; in the second, man is the organism which re-appears when these individuals enter the marriage covenant ; and in the third, man is any male individual, either inside or outside the covenant.

II.

There are two accounts of sex-differentiation and sex-integration in Genesis, one in the first chapter, the other in the second chapter.

The first reads (vv. 25-27) :

"And God said, Let us make *man*" (an organism consisting of two persons, male and female) ;

"Male and female created he *them*" (the male and female persons comprising "*man*.")

Here the two principles are clearly revealed, but only in outline.

The second account begins with the outline, and paints in the details. It depicts

- (i) sex-differentiation (ii. 18-24) :
 the need for it (vv. 18-20),
 the process (vv. 21-22) ;

and (ii) sex-integration (vv. 23-24).

Let us take these sections in order, paying special attention to words which do not bring out the biological meaning of the original.

The English versions begin as follows :

“ And the Lord God said, ‘ It is not good that the man (Adam) should be alone ; I will make him an help meet for [answering to (a)] him.’ ”

And out of the ground the Lord God *formed* every beast of the field and every fowl of the air ; and brought them unto the man (b) [Adam (c)] to see what he would call them . . . ; but for man (b) [Adam (c)] there was not found an help meet for him.”

Throughout these two paragraphs, the word “ *man* ” means the first father of our race. The word “ *formed* ” (v. 19) calls for attention. It is introduced by a consecutive conjunction, and may therefore be rendered “ *had formed*,” which is certainly how it *ought* to be rendered, for the animals had all been “ *formed out of the ground* ” before man appeared, and, like him, they were *formed* during their stem-history (cf. ii. 7). The “ *critics* ” dispute “ *had formed*,” and defend “ *formed* ” because it turns the passage into nonsense.

The Scripture now proceeds from the need for sex-differentiation to the process itself ; and it shows how this process was carried to *completion* in the first woman.

(a) R.V., margin.

(b) R.V.

(c) A.V.

But it is distorted beyond recognition by our English translations, which begin as follows :

"And the Lord God caused a deep *sleep* to fall upon the *man*, and he slept ; and he took one of his *ribs*, and closed up the flesh *instead thereof*, etc." (v. 21.)

For some reason the translators of the R.V. did not take the facts of sex-differentiation into account when rendering this passage. Perhaps the facts were unknown to them. Generally speaking, they are still unknown, except to men of science ; and in 1611, when the A.V. was made, they were unknown altogether. In these circumstances, the translators contrived to make sense by taking the only other point of view that is conceivable, but not without also taking serious liberties with the language of the original, as we shall presently see. According to both our versions, the passage depicts a surgical operation on a man's rib under a total anæsthetic : the rib is removed ; the wound sewed up ; and finally the rib is turned into a woman. This is the meaning which both our versions were intended to convey, and which they do and always did convey to their readers. The passage was obviously interpreted by the translators from the viewpoint of a surgical operation.

False and unscriptural as it is, there is evidence, even in this, of the Spirit of Wisdom, that a passage so difficult should be *capable* of a superficial interpretation which would make shift till the true one became recognisable beneath the surface.

To people unfamiliar with biology, the true interpretation of the passage may at first seem far-fetched. It is never easy to take a new point of view, or abandon an old one, especially one like this, which has been haloed with imaginary glory by centuries of veneration.

It should also be remembered, that the subject of this passage is not revealed plainly enough to anticipate Research ; or else it might have offended the generations of the past ; and yet it is plain enough to be recognized as soon as Research supplies the clue. For these reasons, it will probably need a mental and spiritual effort to re-read the passage in the new light of Research. People who hate exertion, will not be willing to make the effort. "There are none so blind as those who *will* not see." To those who make the effort, however, this passage, which is at present a stumbling-block to multitudes, will light up and take its place among the acknowledged wonders of the Word of God. Let us therefore come to it with care and patience.

The passage is really an account of sex-differentiation—a process which took place during the stem-history of man, and took place again, though very rapidly, of course, in the first woman during the early stages of her development. It had reached different levels of incompleteness in the lower animals ; but, in the first woman, the act of creation took place which brought it on to the terminus. Here, then, in Genesis, the Spirit of Truth has revealed the repetition and completion of this process in the embryo of the first woman.

Now this process *begins* with *man* (in the first of the three senses mentioned above), that is, the developing embryo when it is neither male nor female, but the twain in one. That is where sex-differentiation actually begins ; and therefore the Scripture begins there too :

"And the Lord God caused a deep sleep to fall upon the man (not Adam, but one of Adam's offspring, namely, the embryo from which the first woman was derived by differentiation) ; and he slept."

"*Sleep*": An *unusual* word. It occurs again in the story of the covenant with Abram (Gen. xv. 12), and in Eliphaz's description of the spirit that brought him a message (Job iv. 13). It is therefore a suitable word to represent the sleep of *pre-natal unconsciousness*.

The passage means, that the Lord God brought a human embryo into existence. He caused man to arise in *that* sense of the word. He raised up a "pure dominant" to the first man. The meaning is purposely veiled, like the meaning of those prophecies, whose symbols only became intelligible, when time supplied the interpretation. It strikes the key-note of the whole passage, directing us to render what follows in terms of embryology. From the traditional or any other point of view, the language suffers violence and becomes altogether unintelligible, except as a fable. Our English versions continue:

"And he took one of the *ribs*" (not ribs but *sides*, referring to the two sex sides which are equally developed in the embryo at that stage of development.)

"*Ribs*": The Hebrew word is used about 39 times in the Old Testament, but this is the only place where it has been translated "ribs"! There is no other passage where it *could* mean ribs. Why then is it asked to bear that meaning here? The answer is obvious: that is the only meaning which the translators could think of, though it reduces the passage to nonsense. If any one thinks it may be justified by analogies from kindred tongues (Assyrian, Arabic, Syriac, etc.), I answer that these may justly be regarded as absorptions of this long standing and contagious misinterpretation in Genesis. Nor is it any more effectual to plead, that, when a word is found in the sense of a part of the body, and also in other senses, the former should be

taken as original and the latter derived ; for this is only assuming the very thing that needs to be proved, that is, that the word *does* mean " ribs " in the passage before us. A collation of all the passages in the Old Testament shows clearly enough, that its primary meaning is something very different. On looking at all the passages, the following facts arrest attention :

(a) It is found almost exclusively in passages relating to the Tabernacle, or the Temple, or to some of the things contained therein.

(b) It is found almost exclusively in the instructions for *building* these sanctuaries.

(c) In two out of the 39 passages where the word occurs, according to Young's Concordance, the word used is not the same, being derived from a different root. But in 19 places out of the remaining 37, it is translated "*sides*," and this appears to be its *primary* meaning. In 11 more passages, it is applied by extension to the " side-chambers " of the Temple, the chambers which lined the Temple walls on the *outside*. And in four more passages, it is similarly extended to the beams, boards, and planks, which lined the walls of the Temple on the *inside*. This accounts for 34 out of the 37 passages where it occurs. As for the remaining three passages, it denotes in two of them, the two pairs of corners on the altar ; and in the other, two leaves of a folding door. Quite clearly, then, " sides " not " ribs " is the primary meaning of the word.

But most significant of all in this review is the essential fact, that *the word always means A PAIR OF SIDES* : It is applied to

(a) *the two sides of a valley* :

" So David and his men went by the way (road), and

Shimei went along on the hill-side over against him."
(2 Sam. xvi. 13).

(b) *the two sides of a man :*

"And calamity shall be ready at *his side* (a) (A.V.)
(Job xviii. 12).

(c) *the two sides of the Temple, and sometimes to the side-chambers which lined the sides externally, and sometimes to the planks lining them internally :*

"The door of the middle chamber which was in the right *side* of the house." (1 Kings vi. 8.)

"And against [or upon or joining to (b)] the wall of the house, he built *chambers* round about, etc." (1 Kings vi. 5).

"And the *side-chambers* were in three stories; and they entered into the wall which belongs to the house for the *side-chambers* round about." (Ezek. xli. 6, and nine times throughout the chapter);

"He built the walls within with *boards* (sides) of cedar."
(1 Kings vi. 15);

(d) *the two sides of a door :*

"And the *sides* of the door were five cubits on the one *side* and five cubits on the other *side*." (Ezek. xli. 2);

(e) *the two sides of the Ark of the Covenant :*

"And two rings shall be on the one *side* of it, and two rings on the other *side* of it" (Exodus xxv. 12);

(f) *the two sides of the Altar :*

"And the stones shall be upon *the two sides* of the altar in bearing it" (Exodus xxvii. 7; and so 17 times in Exodus, chs. xxv. to xxvii. and xxxvi. to xxxviii.);

(g) *the two pairs of corners on the sides of the Altar :*

"And two golden rings shalt thou make for it . . . by *the two corners* thereof, upon the two sides thereof shalt thou make it" (Exodus xxxiv. 4; cf. xxxvii. 27);

(a) R.V., margin.

(b) A.V., margin.

(h) *the two leaves of a folding door* :

“ *The two leaves* of the one door were folding, and *the two leaves* of the other door were folding.” (1 Kings vi. 34).

In all these cases, the word means not only “sides,” but a *pair of sides*, that is, two sides which are joined together symmetrically. It is never used except in the dual; and therefore it cannot refer to ribs. What it clearly implies in every instance, is *bilateral (two-sided) symmetry*.

This is clearly the meaning here in Genesis, where, in defiance of the solid and unanimous testimony of all the rest of the Scriptures, it is mistranslated “ribs.” It refers here to *the two sex-sides*, male and female, during the period when they are developing together in the embryo at the same rate, and are therefore exhibiting *bilateral symmetry*. During this stage of its development, the embryo is neither male or female, but *man*, that is, the undifferentiated organism, from which male and female individuals are derived by differentiation. So the Scripture reads :

“ And the Lord God caused a deep sleep to fall upon the man (the embryo at the stage above-mentioned), and he slept (not “*she*” slept, for at that stage, it was neither male nor female).

The Scripture proceeds now to the next stage, where *equal* development terminates, one side being taken on to full development, the other being arrested :

“ and He took one of his (two) sides (the female side). .

‘*Took*’: Of the 911 places where this word occurs, it is translated “accept” in 1, “bring” in 25, “fetch” in 30, “receive” in 62, and “take away”

in 793. Here it means "to take away" *in the biological sense of the word*, that is, to *select*. It does not mean that He took away one of the sides from the organism, but from the organism *in that stage of development*, the stage when both the sex-sides are equally developed, and when it may therefore be called man. From the the organism in *that* stage, He selected one of the two sides for normal development in all the *succeeding* stages, the other side being left behind or arrested in development.

The next phase of development concludes at birth, when the embryo closes altogether along the ventral (under) surface. This is what the Scripture goes on to reveal. In the English versions, it is mistranslated as follows :

"and He closed up the flesh instead thereof."

If this rendering were correct, the biological interpretations would break down. But it is not correct. On the contrary, it falls to pieces when examined :

"*Flesh*:" The word denotes "the physical substance of which the human body is largely composed, as distinct from the bones and skin and special organs, though these also may be included." How suitably it applies, therefore, to the human body before bones have made their appearance, and when special organs are only in course of formation !

"*Closed up*:" The embryo remains *open* along the "ventral" (lower) surface during the whole of its development up to the time of birth ; and then it shuts. The developing body consists of two symmetrical halves, which grow down from the future back-bone,

and unite along the median line of the "ventral" surface. The process of uniting is not so simple as one would be apt at first to suppose; but there is no need to go into that here. Further information may be obtained, if anyone desires it, by consulting a standard text-book of Embryology (*a*). For present purposes, it is enough to know, that the body remains open along three quarters of "the ventral line" during the earliest stage of growth, that is, the stage when both the sex-sides are undergoing equal development. Later on, when their development becomes *unequal*, the body is open along only one sixth of "the ventral line"; and the fraction goes on diminishing until birth, when it vanishes. At birth then the body is "closed up."

"*Instead thereof*," that is, "*in the place of it*": Let us take the pronoun first, and then the preposition: "*It*": If the "rib" theory of interpretation were correct, this word, rendered "it," would of course be *singular*, referring to the "rib" removed from the body. But if the biological interpretation is correct, it ought to be singular *and plural*: singular, referring to the side selected for full development (the female side), and plural, in order to include in its reference the other side (the male side). Now which of these interpretations is correct? The pronoun is in an unusual form: it has a suffix which is clearly singular; but, being singular feminine, it is also capable of a collective meaning, and may therefore be *either singular or plural*! It is singular, then, because it refers chiefly to the side selected for full development; and plural, because it takes account of the other side

(*a*) For example, "*Human Embryology, etc.*" by Sir Arthur Keith, 1919.

as well, the side which degenerates into "vestiges." Our English versions neglect the collective meaning, in order to keep consistent with the "rib" theory; but the true interpretation does justice to *both* meanings, singular and plural.

"*Instead of*": This word has two meanings. In a primary sense, it means "beneath" or "under"; and, in a secondary sense, "for," "for the sake of," "instead of." Frequently, in Scripture, it bears the secondary meaning, "instead of"; and not infrequently, the primary meaning, "beneath" or "under": e.g., "beneath the mount" (Ex. xxxii. 19), "under the firmament" (Gen. i. 7), etc. The context always indicates the meaning intended; nor does it leave any room for doubt here in Genesis, for "the flesh" (embryo) is "closed up" at birth on the *lower* surface. The two sides of the embryo meet and unite along "*the ventral line*," that is, *underneath* the two sex-sides.

The last stage of development takes place after birth, when the organism matures. So the Scripture concludes:

"and the side which the Lord God had taken from the man (the embryo at the stage above-mentioned) builded (*a* and *b*) He into a woman, and (when she grew up) brought her unto the man (Adam)."

Notice in this passage the admirable fitness of the scriptural language. Consider, for example, that architectural word, "side," in association with the architectural word, "builded." Remember, too, how closely—almost exclusively—the word "sides" is

(*a*) A.V., margin.

(*b*) R.V., margin.

associated in Scripture with the Tabernacle and the Temple, particularly with the *building* of them. What word could be more appropriate, therefore, where the building of the temple of the *body* is the process in question? Moreover, the Tabernacle and the Temple prefigured a spiritual *organism*—the Kingdom of God. How properly, then, does this passage in Genesis employ a word so intimately related to the types of a *spiritual* organism—the Body of Christ—in order to account for a *physical* organism—the body of the first woman, itself a type of the Body of Christ!

Such is the scriptural account of differentiation. And where differentiation ends, integration begins. Sex-integration *began* in man, because that is where sex-differentiation *ended*. One became two, that the two might become one. It is an organism called Man which becomes two, and therefore it is an organism called Man which returns into existence, but on a new and infinitely higher level, when the two become one. Needless to say, it is impossible to find unions of this sort in the casual partnerships of the lower animals, or in unlawful attachments of men and women. These exemplify unions of a sort, but not the union of an *organism*, for an organism is a work of God. It is something which “*God hath joined together*”; and therefore “no man (may) put (it) asunder.”

Accordingly, the Scripture passes straight from differentiation to integration. Having shown in chapter i, and explained in chapter ii, that Man is not one, but one differentiated into two, it proceeds to reveal the covenant, divine and indissoluble, which

makes the two one. The order is strictly biological; the first is the foundation of the second:

"And the man (Adam) said, This is now bone of my bones, and flesh of my flesh (being not only the fruit of his loins, but also the other side of him): she shall be called Woman, because she was taken out of Man (not Adam, but the two-sexed organism where man and woman both alike originate).

"Therefore shall a man leave his father and his mother, and shall cleave unto his wife, and they shall be one flesh" (a).

This concludes the inspired story of the creation of man. It proves to be a story of *creation* during descent, not evolution during descent. It consists of two parts, each beginning with "the prime chaos," and each ending with Man. Both parts cover the same ground exactly; but the first (i. 2—ii. 4) shows *how*, and the second (ii. 4—25) *why*, man was created; therefore the first supplies the details of the process, whereas the second regards it as a whole, calling it the process of *forming* man, and only entering into details when it comes to the last stage of the process, for this is where the chief end of man begins to appear. It accounts for the first man as a *spiritual* being ("a living soul") by showing how spiritual Life ("the Spirit of Life") was breathed into his nostrils before birth; and it accounts for man as a *sex* being, by showing how sex-differentiation was completed in the first woman before birth. It represents the man as a spiritual organism where God and man are united in

(a) Cf. Eph. v. 30-32.

the covenant of Life (ii. 17), and as a physical organism where man and woman are united in the covenant of Marriage (ii. 24). And it puts the spiritual first, because it *ought* to be first. These covenants reveal the chief end of man. Apart from these two covenants, it is impossible for man, either as a spiritual or as a sex being, to please God.

In the first part (i. 1—ii. 4), therefore, of the story, the Deity appears exclusively as the *Creator*, and therefore he is named God ; but throughout the whole of the second part (ii. 4–24), where He appears not only as the Creator, but also as the Covenant-Keeper, He is named “ the Lord God.”

PART III

THE ORIGIN OF SIN

CHAPTER I

SIN OR THE DEATH OF A LIVING SOUL

(Genesis iii.)

1.

So much for the first and second of Genesis. In commencing the third chapter, we pass from the making to the *marring* of man.

As God made him, man was

(1) a spiritual organism ("a living soul"),

(2) a physical organism (a living body),

and (3) a social organism (a man and woman
"integrated").

And being three organisms, he was capable of three *deaths*, whichever died. Now that which *marred* man was not death as a social or as a physical organism, but *his death as a spiritual organism*,—the *captain* of this wonderful triumvirate. This is what ruined man and mankind, and this is the theme of the third of Genesis.

In the preceding chapter (ii. 7-17) man as a spiritual organism (signified by two central "Trees") is represented as the invisible secret of Eden's visible glory. But the third chapter, which is the sequel of the above, leads us from the Life to the *Death* of man as a spiritual organism; and it represents that Death as the cause of Eden's *destruction*. The secret at the heart of all material weal or woe is spiritual. In coming then to the third of Genesis, we pass from Life the secret of Paradise, to Death the secret of Ruin.

But what is death, and, in particular, the Death of a "spirit" or "living soul"? How was it caused? What effects has it produced? These are questions of unparalleled importance to all the family of Adam. They are questions which come to the threshold of the Gospel; and they are answered here in the 3rd of Genesis. Let us take them in order.

1.

First of all, then, *what is Death?* There is nothing which has *life* except organisms; and therefore nothing but organisms can *lose* life. When an organism loses its life, it is said to *die*. Therefore nothing but an organism can die. Everything else is dead already, whether it be an inorganic ("carnal") soul, or an inorganic substance:

Those teachers greatly err, who are responsible for the notion that death is "the severance of body and soul" (a) or of "body and soul and spirit" (b). These are some of the *consequences* of death, in the case of man, but not death itself. Otherwise how could a *tree* die, for example? A tree has neither soul nor spirit; but, like every other organism, it has *life*; and, like every other organism, whether material or spiritual, it dies when it loses its life. When the "silver cord (life) snaps asunder," then "the golden bowl (the organism) is broken."

2.

Consider, in the next place, *how death may be caused*: Any organism may die. Life will only take a *conditional* lease of its lovely tenement. If the terms of

(a) *Cruden's Concordance*; etc.

(b) 13, p. 63.

the lease are honoured, the life remains ; but if not, it is extinguished : that is to say, the organism dies. The terms of this lease or covenant, as applied to a spiritual organism, were conveyed to the first man in the following words :

“ Of every tree of the garden (the Garden of Eden) thou mayest freely eat ; but of the Tree of the Knowledge of Good and Evil (which was within him) thou shalt not eat of it (call its verdicts in question, as if they were matters for argument) : for in the day that thou eatest thereof, thou (the spirit not the body) shalt surely die ” (a).

In other words, if he tampered with his spiritual senses—that is, the capacity to distinguish between Good and Evil—he would lose his spiritual Life ; for Life cannot work in a false heart, and where it cannot work it cannot remain. All this is simply, as we saw above (b), the spiritual application of a principle of biology.

But would a living soul do such a thing ? Would it challenge its own senses, when Life itself is the forfeit ? Nothing which has life is willing to lose it. Even plants, though void of thought and sense, defend their life with unconquerable tenacity ; and life is the last thing, which any *animal* will part with. And “ what will a *man* give in exchange for his life ” ? “ *All that a man hath will he give for his life (the life of his body).* ” And, if he had life in his *soul*, how much more jealously would he cherish that ! Suicides are insane. They forfeit their life, only because they have lost their senses.

“ Whom the gods destroy
They first make mad.”

Similarly, a living soul would never defy its spiritual

(a) Genesis ii. 16-17. Forbidden fruit is misnamed only to be tasted.

(b) See p. 79.

senses and die, if those senses were not first of all deranged, or (to use the apostle's words) "bewitched" (a) and "blinded" (b).

But how could this happen? Till fifty or sixty years ago, it would have been impossible to say. But now, thanks to Pasteur's celebrated researches, everybody knows, that all or nearly all the contagious diseases of plants and animals have been traced to attacks by other plants and animals of a very primitive kind, called "*bacteria*." Why then should disease be referred to any other cause, when the organism affected is not physical but spiritual? If there is such a thing as a spiritual organism, is it strange to find that there are spiritual *bacteria* too? It would be very strange if there were not! At any rate, this is what we *do* find in the Scriptures. From cover to cover, this is the only explanation they give, why a living soul may suffer disease and die. As bacteria are plants and animals, which have degenerated in consequence of the parasitic habits they adopted, so there are degenerate or fallen spirits. And as bacteria assail organisms only, so fallen spirits confine their assaults to men "in the spirit": as for men "in the flesh," they are incapable of spiritual temptations. Moreover, as bacteria destroy the supremacy of the life-nature over the death-nature in plants and animals, so, with the same end in view, evil spirits attack living souls. Both these natures are present in living souls. They are always opposed; and yet, as in plants and animals, the Life-nature keeps normally supreme. As the Apostle says,

"the flesh (the Death-nature) lusteth against the spirit

(a) Galatians iii. 1.

(b) 2 Corinthians iv. 4.

(the Life-nature), and the spirit against the flesh ; and these are contrary the one to the other."

But he adds,

"Live in the spirit (the nature which is normally supreme), and ye shall not fulfil the desires of the flesh (the Death-nature) (a).

It is the object of satanic temptation to ruin the supremacy of the Life-nature. But the Life-nature "cannot sin." (b) Satan himself cannot make it sin. But he can *poison its sense of sin* ; and, if he succeeds, the Life-nature will lose its ascendancy. This then is the first objective in Satan's strategy. His poison is not a gas, nor a liquid, but a *lie*. As a surgeon chloroforms his patient before using the knife, so Satan administers the chloroform of deceit to deaden the sense of sin, or, as it is called here in Genesis, "the Tree of the Knowledge of Good and Evil."

This is what happened to "the first Adam" in Eden. Said the Lord God,

"In the day that thou eatest thereof, *thou shalt surely die.*"

Said the Father of Lies ("the Serpent"),

"Thou shalt NOT surely die."

3.

From the *cause* of man's Death as a spirit, let us pass on now to the *effects*.

Although it was in the spirit, where the disaster

(a) Whenever the terms "flesh" and "spirit" are opposed in the N.T., the former does not mean the body, but the soul when it has no life. It denotes the inorganic condition of a dead soul. "But ye are not in the flesh," writes Paul to the Romans. They were in the body, but not "in the flesh." Therefore "the flesh" is not the body. Similarly "the spirit" denotes the organic principles of a living soul. Cf. John iii. 6 ; Romans viii. 9.

(b) 1 John iii. 9.

took place, and where the effects of the disaster commenced, the effects did not *end* there. The invisible dislocation, which took place recently in the sea floor off the coast of Chili, sent out waves, which disturbed the whole Pacific ocean: some of them travelled southward and broke up the Antarctic ice-fields into icebergs, which on drifting away became at last a danger to shipping; other waves travelled westward and northward till they smote every shore and flooded every inlet from Australia to Alaska; and others, gleaming with phosphorescent light, fell like walls on the shores near by, and buried their cities in sand! Even so, the effects of the Death, which the first man as a spirit died in Eden, were not confined to the spirit, but affected the *whole* man, the *whole* race, the *whole* earth, and, as Paul the Apostle says, "the whole creation" (*a*)! They are not only spiritual, but social, physical, racial, and terrestrial! Here, in the third of Genesis, the Scripture locates the *origin* of this tremendous calamity, and then it reveals, in their sequence, the ruinous waves which followed. Let us consider them briefly:

(1) If an organism dies, it "perishes" (*b*). Death baptizes it into "loathsomeness and ruin." And when the ruin is complete, all that remains, if it was a material organism (plant or animal), is a heap of dust. Similarly, if it were a *spiritual* organism, the living soul would become a dead soul—a ruin.

I have seen the death of a favourite horse. I saw the surgeon shoot him. Instantly the dear familiar form was prostrate; the tender eyes were filmed;

(*a*) Romans viii. 22.

(*b*) John iii. 15; 2 Corinthians ii. 15.

and the noble head lay motionless in a pool of blood. As we looked at the ghastly spectacle, one glanced at me and exclaimed, "What a terrible thing death is!" That was a death of a *horse*! And I have seen a lovely *child* claimed for "the tainted sepulchre"! Changed to "a leprous corpse"! Fed to

"the worm

"That lurks in graves and fattens on the dead!"

And if this is the death of a *body*, what must the death of a spirit be! A living soul! What a change! From life, the incomparable treasure, to death the incomparable calamity! From the Life-nature, where the soul "cannot sin," because there it is centred in God; to the Death-nature, where the soul "cannot please God," because there it is *self*-centred! From "the fruit of the spirit," which is infinitely beautiful, to "the works of the flesh," which are infinitely loathsome! That was the disaster of Eden!

And the soul entered this state through a process of spiritual decomposition. Accordingly, the Scripture—still using the visible things of the garden (the two central "Trees," "the Serpent," "the Wind," "the Fig-Leaves,") to represent the invisible realities of the spirit—proceeds to describe this process of decomposition, first of all (vv. 7–13); and then it goes on to mention the *permanent* conditions which followed (vv. 14–24). Let us follow the scriptural arrangement:

(1) In describing spiritual decomposition, or apostasy, or "falling away," it gives all the steps from beginning to end:

(i) The first step in the process is the eclipse of the Life-nature ("the spirit") by the Death-nature ("the

flesh”), and the consequent awakening of sin-consciousness or guilt :

“ And the *eyes* of them both were *opened* (to sin).”

(ii) This awoke the felt need of a covering or *atonement* (a) to take away guilt :

“ And they knew that they were (*spiritually* as well as physically) *naked* (that is, in need of a covering or atonement).

(iii) Then came the first futile attempts to satisfy this need—attempts at self-made atonement, which are well understood by all who know what conviction of sin is :

“ And they sewed fig-leaves together, and made themselves *girdles* (coverings or atonements)” (b).

(iv) Next they discovered the *failure* of all these attempted atonements “ to give the guilty conscience peace ” :

“ And they heard the sound (R.V. margin) of the Lord God walking in the garden in the *wind* (A.V. & R.V. margin) of the day : and the man and his wife *hid themselves from the presence of the Lord God*, etc.”

(v) Thus “ the flesh ” took full possession ; and at once its self-centred character became manifest :

“ And the man said, ‘ The woman etc.’ ”

“ And the woman said, ‘ The snake etc.’ ”

In this way, then, the apostasy or spiritual decomposition of the first man went on to a finish.

(2) Now for the *permanent* consequences which followed :

(i) In the first place, when he lost the Life of his

(a) The word “ atonement ” means in Hebrew simply “ a covering.”

(b) They probably used coverings of actual “ fig-leaves ” to relieve the feeling of shame created by Sin.

spirit, he lost the Image of God ; and therefore he became, as Wesley and Whitfield used to say, " half beast and half devil."

(ii) In the second place, his *body* was visibly affected by the invisible disaster in his soul. The lawlessness of his new nature exposed him to lust and disease. When there is Life in the soul, the bodily instincts respond to it, like the tides which answer sun and moon, or like the lions which submitted to Daniel's divine charm, as soon as he entered their den. But just as the lions became wild ravening beasts again, as soon as Daniel was removed, so the body becomes disordered, and loses its tidal harmony, if the soul loses its Life.

(iii) And the wave went further still : *Satan himself* has suffered by the spiritual Death of man. The effect has recoiled on the cause. When Satan tempted man, he became the agent of spiritual disease and death. Like the bacteria, therefore, he has paid the price of parasitism. Every parasite is a degenerate. The barnacle, for example, has degenerated so much, that nobody knew what it really is, until Darwin set to work, and found it to be a degenerate mollusc ! In like manner, degeneration is the price which *Satan* has had to pay (v. 14) :

" And the Lord God said unto the Serpent, ' Because thou hast done this thing, *cursed* art thou . . . ; *on thy belly* shalt thou go, and *dust* shalt thou eat all thy life.' "

Sooner or later, though, bacteria will be stamped out. And similarly Satan's power will be brought to nought by " the last Adam " (v. 15) :

" And I will put enmity between thee and the woman, and between thy seed and her seed (Christ). It (Christ) shall

bruise thy head (at his *second* coming), and thou shalt bruise his heel (at his *first* coming).

(iv) As a *social organism*, man has survived his death as a spirit, but only as spokes and felloes survive in a wheel when the hub splits; or as people survive in a state where government has broken down. As a social organism, the man and the woman were one. While there was Life in their souls, it effaced self-interest, and hallowed the covenant which made them one. But when that Life was extinguished, human nature became self-centred, love became self-love, and, consequently, the covenant lost its hallowing light. Thus spiritual Death has disturbed the social organism, and, in particular, the *body* of the organism, namely, the *woman*.

Even in the noblest days of ancient Athens, it was taken for granted (to quote Professor Tucker, Litt.D.) "that woman was in general an inferior being." "The Athenian did not, it is true, keep his wife imprisoned after the manner of the Turk, nor did he entertain so low a view of her relation to himself; but he did theoretically maintain, that . . . her place was inside the house, and her range limited by the street door" (a). All this and more the Scripture refers to its proper cause (v. 16):

"Unto the woman, he said, I will greatly multiply thy sorrow and thy conception; in sorrow thou shalt bring forth children; and thy desire shall be to thy husband, and he shall rule over thee."

And not this alone, but the other social relations have all been thrown out of centre by spiritual Death, particularly the relations of masters and servants. "Do men gather grapes of thorns or figs of thistles?"

(a) 19, p. 101.

How then can self-centred masters and servants bring forth the grapes of justice or the figs of good-will? Let reformers, socialists, bolsheviks, mensheviks, and quacks in general prate about the cause of labour troubles; but here, on their first pages, the Scriptures reveal the *true* cause! Spiritual Death is the cause, and spiritual Life is the remedy.

(v) These troubles have been aggravated by the *terrestrial effects* which spiritual Death produced: It cursed the very earth! Then and now enduring prosperity and spiritual Life are concomitants. The secret "in the midst of the Garden of Eden" was the Life of a living soul. When *that* withered, the garden withered too; the ground lost its blessing, and brought forth "thorns and thistles" instead (vv. 17-19):

"And unto Adam, he said, 'Because thou hast hearkened unto the voice of thy wife, and hast eaten of the tree, of which I commanded thee, saying, Thou shalt not eat of it: *cursed is the ground for thy sake*, in toil shalt thou eat of it; thorns and thistles shall it bring forth unto thee . . . ; in the *sweat* of thy face shalt thou eat bread, till thou return unto the ground' . . ."

(vi) Moreover, when the first man lost his spiritual Life, he lost it *irrevocably*. There was no one to hold it in reserve for him and restore it if he lost it. There was no atonement, whether "fig-leaves" or "coats of skins," no, nor even the antitypes of these things in the Levitical priesthood, which could possibly provide for its restoration (vv. 22-24):

"And the Lord God said, Behold the man is become as one of us, to know good and evil; and now, lest he put forth his hand, and take also of the Tree of Life (the nature of Life which he had forfeited), and eat and live for ever: therefore the Lord God sent him forth from the Garden of Eden to

till the ground from whence he was taken. So he drave out the man."

Finally, when spiritual Life was lost irrevocably to the first man, it was lost to his *unborn family* too. To them he transmitted the Life that remained (physical Life), but not the Life that was lost (spiritual Life). That was impossible. Therefore

"in Adam *all* died."

By natural inheritance, every child of Adam has a living body, but a soul

"dead in trespasses and sins."

And being dead by nature, we are "by nature children of wrath."

"So he drave out the man ; and he placed at the east of the garden of Eden the Cherubim, and the flame of a sword which turned every way to keep the way of the Tree of Life " (v. 24).

Having inherited Death, the whole race is involved in the *consequences* of Death. To this day, then, Eden remains a desert, and the greatest relationships, both domestic and industrial, are disturbed, because the soul has become self-centred, or, in other words, has lost its Life. We are lost because we have lost something ! As a spendthrift squanders his fortune, and leaves his children the hereditary estate without funds to keep it up, so the first man forfeited our spiritual Life—the only power which can keep our social and physical life pure and beautiful. Roped together, like a team of alpine climbers, we all perished together before we were born. Now, if never before, these facts seem incontestable. Who can doubt that we belong to a ship-wrecked race, when every tide is washing up the wreckage, and heaping it mountains high along the shore !

II.

Now this is what theologians refer to—but not always with insight or consistency—when they speak about “*the Fall*.” To be sure, this term of theirs has taken root in common usage; but it is a term which the Scriptures never use, no, not once, either in the Old or in the New Testament! The Scriptures use another term, “*Death*”; but this term has been driven from the field! And why? Is the other term better? Is it as good? Is it even suitable? Does it denote what happened, or explain what followed, namely, the condition of a race which is spiritually dead, socially and physically out of joint, and in all respects exiled from its Paradise? Life and Death were the elements of that Eden catastrophe: a living soul lost its *Life* there; a spiritual organism *died*. It was a *biological* event, and therefore it can only be described in *biological language*. There is one term, and only one, which truly expresses it, namely, *Death*. And this is the Scriptural term! It not only denotes exactly what happened, but brings out its tragic character, and accounts fully for all the consequences. But the unscriptural word, “*Fall*,” gives a *false* idea of the event, and no idea at all of its tragic character! Worse still, it renders all the consequences unintelligible. How, for instance, could a fall have *racial* consequences? Is a fall hereditary? Or, again, if it is said that Adam merely “*fell*,” who can recognise his relation to “the last Adam”? According to the Scriptures,

“the first Adam was a living soul; the last Adam was a life-giving spirit (that is, a living soul capable of incorporating and quickening other souls).”

The one *lost* the Life of the soul ; the other has come to *restore* it. The one created the *need* of atonement ; the other has satisfied that need. The one destroyed Paradise ; the other is coming to replant it : And just as Paradise was lost in two stages, (1) the first, when man died as a spirit, and (2) the second, when the garden died ; so will it be restored in two stages, the one commencing with the first coming of Christ, the other with His second coming. Already the guard of Cherubim has been recalled, and the way opened again to “ the Tree of Life ” ; and, when Christ returns, the curse on the ground will give place to a blessing, and “ the Tree of Life ” will be surrounded again with the trees of Eden—the Eden, this time, of a world under divine government :

“ Instead of the thorn shall come up the fir tree, and instead of the briar shall come up the myrtle tree ; and it shall be to the Lord for a name, for an everlasting sign, that shall not be cut off ” (a).

All that was lost in the first Adam shall be fully restored, yea multiplied, in the last Adam :

“ Where He displays his healing power,
Death and the curse are known no more ;
In Him the tribes of Adam boast
More blessings than their father lost ! ”

On the ground of these glorious relations, “ the first Adam ” has been well called “ a figure of him that was to come ” (b). And an illuminating figure he is, if we stick to the biological language of the Scriptures. But if we call his Death a “ Fall,” thus hiding the biology of it all, the same figure becomes a riddle ; people regard it with suspicion ; and critics claim it for the cause of unbelief.

(a) Isaiah lv. 13.

(b) Romans v. 14.

The confusion becomes worse still, when theologians try to show, like Henry Drummond, that "the Fall" (a false version of man's Death as a spirit) may be interpreted by Evolution (a false version of the Doctrine of Descent)! To people under the influence of Evolution, man is still on an upward plane of natural variations, the Deity is not needed, and the Scriptures are absurd, especially this part about "the Fall." "There was no Fall," they tell us in their airy way: "it must have been a fall *up*." "There is no sin: what seems so is causation!" "It's the *body* that is wrong; and the body will be all right, when 'the ascent of man' is finished!" "And if there was no Fall, then, of course, there is no need of a New Birth." "And if there is no such thing as sin, there is no need of Atonement." Indeed, if Evolution were right, not only the Scriptures, but faith of *any* sort would be false.

These clouds will never disappear, till theologians give up talking about "the Fall," when they mean the "*Death*," of man, and give up using the word "Evolution" to denote the Doctrine of Descent. By squirting these inky caricatures about them, like squids in a battle, they "darken counsel by words" and confuse all who follow them.

The only religion revealed in the Scriptures is spiritual *Life*. It is just as intangible as the life of a tree; but just as real and wonderful. It entered in "the first Adam," and has *re-entered* in "the last Adam." It is the very essence of Christianity. But although it is spiritual, and resides in a spiritual organism ("the Christ"), it obeys the very same principles as the life in *material* organisms. This is why the Scriptures are unintelligible to critics and others, who have never recognised the vital or spiritual

nature of its Revelation. As soon as this is recognised, the Fall, the New Birth, Substitution, Imputed Righteousness, and every other principle of the Gospel, become intelligible and self-evident. The theology of the Scriptures is spiritual biology. Its subject is the genesis of Life in the spiritual world.

To conclude, the father of mankind was a spirit as well as a body. He was an organism in both these senses ; and therefore he was capable of *two deaths*. As Wesley used to say, his spirit died 900 years before his body. In like manner, his children are all capable of *two births*, the one when the body, the other when the soul, begins to live. The soul begins to live, when it recovers in "the last Adam" the Life which it lost in the first.

"He that hath the Son hath the Life :

He that hath not the Son, hath not the Life."

Accordingly he that receives the Son, is said to be "born *again*."

"Verily, verily, I say unto thee : Ye must be born again."

From Life unto Death—that was "the Fall." "From Death unto Life"—that is "the New Birth."

CHAPTER II.

CONCLUSION.

LET us now review the preceding pages, in order to arrive at a verdict.

I.

The Doctrine of Descent is the theory, that all organisms, both plant and animal, including man, descended from common ancestors. If this is true, variations must have taken place during Descent; and accordingly the Doctrine of Descent is often known as Variation during Descent. The Doctrine of Descent has nothing to say about the *nature* of Variation, much less about the *cause*: it simply asserts the *fact*.

Biologists are *entirely unanimous* in taking the Doctrine of Descent as proved; and this has been the case for 30 or 40 years.

But on passing from the *fact* of Variation to the *cause*, two alternatives arise: it was either

(1) a natural cause (evolution),

or (2) a supernatural cause (creation).

Many theories have been proposed in order to reduce Variation to a natural cause or evolution. None of these theories, not even the theory of Natural Selection, invented by Darwin and Wallace, has ever been regarded by biologists as proved. They were always treated as theories on trial, and to-day biologists are practically unanimous in taking them all as false.

To sum up, biologists all agree that Variation has taken place ; and they also agree that all attempts to treat Variation as a *natural* process, or evolution, have come to nought.

The work of Mendel was brought to light 23 years ago. Mendel's work showed, that a species cannot vary in such a way as to become another species. It may vary within itself, either owing to the dropping or re-sorting of hereditary factors already in existence ; but it cannot bring *new* factors into existence, or, in other words, give rise to a new species. Only a Creator can bring new factors into existence. In other words, true Variation was never a natural, but always a *supernatural* process. It was not Evolution but Creation ; and therefore it *ended* when Creation ended. Accordingly all the attempts, that have been made to find it in operation at the present time, have entirely failed. Evolution implies the Doctrine of Descent ; but the Doctrine of Descent does not imply Evolution : it implies Creation.

II.

Therefore, the question before us is simply this : Was the scriptural story of Creation conceived in the Spirit from the standpoint of Creation during Descent, or not ? This is a question which has never before been proposed, much less answered. It is put and answered for the first time in this volume. Up to the present, the first two chapters of Genesis have been read, either from the traditional point of view (Creation without Descent), or else from the evolutionary point of view (Descent without Creation) ; and always with results which are unsatisfactory in the extreme. But

we have found, that Creation during Descent supplies a simple, complete, and satisfactory explanation of the form and arrangement of the two chapters, of their relation to each other, of their verbal discriminations, and of all their other details and peculiarities.

For example, the Doctrine of Descent explains, why the story of creation is divided into *two parts*,

(1) Genesis i. 1—ii. 4,

and (2) Genesis ii. 4—24,

both covering the same ground exactly, having the same origin (the nebula) and the same terminus (Man). To those who ignore or deny the Doctrine of Descent, this seems like vain repetition; but it is one of the results which necessarily follow from the Doctrine of Descent, for the first part shows *how*, and the second part *why*, man was derived from the nebula. Therefore one gives the steps of the process, but the other the process as a whole—the process of forming the earth out of the nebula, and of forming man out of the earth as a potter forms the clay. It actually uses the very word (ii. 7), whose root meaning is to mould or fashion with the fingers as a potter moulds the clay!

For another thing, the Doctrine of Descent is *actually revealed* between these two accounts, namely in ii. 4. This is the key which the Scripture itself supplies; it is the *only* key which can unlock the meaning of the two passages, and reveal their relation to each other. *Descent* is revealed fully in that word “generations” (steps in descent); and *Variation* is implied in Descent. Moreover, the Variation here revealed is not a natural process or evolution; for, according to the passage preceding (i. 1—ii. 4), the species are fixed; they bring forth “after their kind.” It is therefore a *supernatural* process or creation; and accordingly, new

species arise here only in response to the fiat of their Maker.

For another thing, there are certain *words* in the inspired story, which only become intelligible, when read from the standpoint of Creation during Descent. They prove to be biological through and through. The story of the woman, for example, refers to facts of embryology, which have been well known to biologists for more than a century, but are not known to others even yet.

Lastly, if the two parts of the Story of Creation are not read in the light of Descent, then, as G. Rapkin said in his book (*Genesis and Science*), "they do not agree at any one point"; they appear not only inconsistent with Nature, but inconsistent with one another. And this is how they are still read by Higher Critics, Rapkinites, and all the schools of thought current to-day. But if read in the light of Creation during Descent, they reveal what is true in Biology (the Doctrine of Descent), correct what is false (Evolution and Tradition), and agree with one another in all points, great and small, without a single exception. The alleged "inconsistencies" turn out in every case to be biological discriminations. They are exactly and precisely the distinctions which ought to have been made, if Creation was conceived there from the standpoint of Descent. It would be hard to find, even in the Scriptures, a more beautiful example of perfect arrangement and discriminating exposition.

Here, then, are two contradictory standpoints for interpreting the story of Creation in Genesis, one affirming, the other denying, Creation during Descent. One must be true, and the other must be false. We find that one of them is true to Nature, and true to the

Scriptures to the uttermost "jot and tittle"; but the other is false to both: As to Nature, it draws no distinction between Evolution and the Doctrine of Descent; and as to the Scriptures, it adds to them, takes away from them, wrests them, misrepresents them, makes them inconsistent with one another, wraps them in clouds of absurdity, and renders them altogether unintelligible except as fables and legends. Therefore the first standpoint (Creation during Descent) must be right, and the other must be wrong, whether it takes the form of Creation without Descent (Tradition) or of Descent without Creation (Evolution).

III.

Important conclusions follow this verdict. If the old interpretation is wrong, so are all the theories which have been built upon it. Taking their stand on this false interpretation, which is the only one they know of, many men of Science oppose Revelation, and many men of Religion oppose Research! On the same false interpretation, the Higher Critics have built their so-called "new attitude to the Bible," though it is really as old as the Bible itself. Say the Critics, "The Bible must not be expected to speak with authority on questions of physical science, which are not in the strictest sense germane to its purpose" (a). In compliance with this "Statement," many evangelical churches are now prescribing Peake's *Commentary* to be used as a text-book by candidates for the ministry.

(a) "*The Evangelical Faith and the Modern View of Scripture.*" (A statement prepared by a Committee of the Federal Council of the Evangelical Free Churches of England).

"Apart from internal inconsistencies," says Peake's *Commentary*, commenting on these chapters in Genesis, "there are intrinsic incredibilities." And again, "The narratives of Creation cannot be reconciled with our present knowledge, except by special pleading which verges on dishonesty." Dr. Peake's "*present knowledge*" of Nature is evidently not remarkable, except for confusion. It includes the false interpretations mentioned above ; and these are his grounds for impeaching the authority of Holy Scripture with such great self-confidence. Like the rest of the Critics, he has built on a foundation of mares'-nests. But notwithstanding their ignorance, the critics love boasting about their "*scholarship*." For the most part, they are men trained exclusively in the classics ; and yet they consider themselves competent to speak with authority on everything else. What they lack in knowledge, they make up in vanity. Even the infallibility of the Scriptures must yield before *their* infallibility ! So education makes many men vain, but few wise ! Too often those words are still true :

"For the more languages a man can speak,
His talent has but sprung the greater leak."

The scriptural story of Creation is so scientific, that the Critics do not know what it refers to. It is not the Scriptures, but the Critics, who turn out to be unscientific.

But there is another conclusion, still more important, which ought to be acknowledged, if the biological interpretation of these chapters in Genesis is right. It reveals there an *element of prophecy* like that of the writings of the prophet Daniel and the apostle John. As the greatest events of history during the last twenty-five centuries are foreshadowed in the writings of these

seers, so the greatest generalisation of modern Research has been anticipated by the Scriptures in their very first pages. As Daniel and John saw the future, so the author of Genesis saw the *past*; and he saw it, as *they* saw, with *chronological* accuracy. But as the prophecies of Daniel were written in the language of symbols, lest by any means they might become the means of their own fulfilment—but symbols intelligible enough to leave no room for doubt regarding their real significance, whenever time supplied the real interpretation—so these opening chapters of the Bible were written to be interpreted by Research, and not to take its place, nor to render it unnecessary. Their meaning is revealed there like the secrets of Nature; that is, in such a way, that any one may discern it after some one else has pointed it out, but hardly before, unless he has a penetrating spirit like Augustine, who is said to have expounded the principle of Descent from these chapters, as long ago as the fourth century.

“So it is the object of the Scriptures to teach Science?” No; that is not their *object*; but it is one of the *means* they use for reaching their object. There is a wonderful analogy between the material and the spiritual worlds; and this analogy imparts a *spiritual* significance to the first and second of Genesis. It converts the Creation “week” into a calendar of the spiritual world from its uttermost beginning to its uttermost end. The “days” of the one prefigure the “ages” or “dispensations” of the other. As the elements of the material world were created for *life* as their highest end, so were souls—the elements of the *spiritual* world. As life entered the material world on the third “day,” so in the third “age” or “dispensation” of the spiritual world, the last

Adam restored and established the *Life* which the first Adam had lost. As evolution cannot account for the genesis of life in the material world, so neither can it account for Christ—the genesis of “Life everlasting” in the spiritual world. As life has renewed the face of the earth, and covered it with glory, so “there shall be new heavens and a new earth,” when “the Author of Life” makes “all things new.” The first and second of Genesis are a history and a sacrament—a history of things seen, and a sacrament of things unseen. And the sacrament is reliable, only because the history is true. Of what value would the spiritual antitypes be, if the material types which point them out were unreliable and false? So then, although it is not the *object* of the Scriptures to teach Science, they would fail to teach at all, if they turned out to be false to Science, or to History, or to anything else they employ as the vehicles of their spiritual message.

“Nay, but of what use were these chapters in the past, if the principles they reveal, are only coming to light now?” I answer, that they were not written for the past. They anticipate modern discoveries, because they were written for modern times. Of certain visions, Daniel the prophet said, “I heard, but I understood not.” And the revealing angel answered him. “Go thy way, Daniel, for the words are shut up and sealed till *the time of the end*” (a), that is, *this* time, in which we are living now. The late war unsealed much of the meaning of these words. And, similarly, the Doctrine of Descent is breaking the seals of Genesis. And as “the wise” (b) only are able to “understand” the prophecies of Daniel, so

(a) Daniel xii. 8.

(b) Daniel xii. 10.

they shall understand these chapters of Genesis, when they see them opened up by the key of Biology ; “ but none of the wicked (men indifferent to truth) shall understand.”

These chapters are like a lock. Many interpreters have tried in ages past to open the lock ; but not successfully, because they did not have the right key. By dint of main force, some of them managed to turn their keys in the lock ; but instead of opening the lock, they only injured it, breaking some of the wards, twisting others, and straining all the rest. This is a true picture of our versions, both the Authorised and the Revised. In recent years, a few people have been trying *Biology* as a key ; but these too have failed, because the key, as they used it, carried the wards of Evolution, and even Darwinism, in addition to those of Descent. But if Evolution is filed off, and the same key tried again, we have seen how easily, how perfectly, it opens the lock. What then ? Shall we imitate the Critic who throws away the lock, or the bigot who throws away the key ? It behoves all who resist the infallible Scriptures in the imaginary interests of Research, and all who rail at Research in the imaginary interests of the Scriptures, to realise their false position as speedily as possible. They have put a terrible stumbling block in the way of the rising generation. They ought to cast it up without delay. The Critic offers them relief by treating the Bible as an “ inspired ” book which commences with a story of Creation which is all wrong ! This is a position which unsophisticated people, both young and old, are unable to accept. They *know* it is false ! On the other hand, they hear too many evangelical ministers exhorting them to choose between the Bible and the

Doctrine of Descent. All colleges and universities assure them, that the Doctrine of Descent has been verified. And yet they are asked to choose between *that* doctrine and the Bible ! This is slamming the door in their faces, and driving them off into infidelity ! It is all this, which makes the ground so hard, the sowing so difficult, and the harvest so scanty. Beyond all doubt, this is the great hindrance to a general revival of true Christianity.

But why appeal to consequences ? Is Truth an affair of profits and losses ? If a tradition proves to be false, ought it not to be dropped on that account alone, whatever the cost ? What shall we do then ? Shall we drop the false tradition, or the truth ? It is a terrible thing to drop the truth. Nevertheless, we are all inclined to do so, when it suits us. By nature we love our fads ; and when Truth approaches to cast them out, we cry, like the Gadarene, " Let us alone ! What have we to do with Thee ? " But woe unto us, if we go *on* resisting. " The Truth will set you free," if you accept it ; but, if not accepted, it will charge itself with poison, and assail you like a serpent. When Moses dropped his rod, it became a serpent ; but when he took hold of it again, and lifted it up, it became once more a *rod*—the symbol of Israel's might ! In like manner, the Doctrine of Descent will always seem poisonous to those who refuse to take it up ; but, on taking it up, it becomes a principle of freedom ; it opens the way through seas and floods of difficulty ; and leads us out of bondage to the land of promise.

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APPENDIX I.

MENDELISM AND THE FIRST MAN.

A recent "Question Night" brought out certain facts, and exposed certain popular superstitions regarding the Doctrine of Descent, in such a clear, direct, and forcible manner, that I feel bound to offer them to the public just as they were spoken :

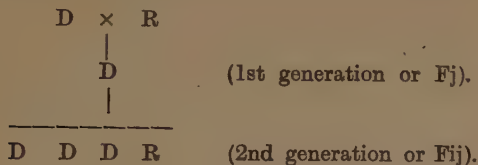
Question.—Is there any ground for supposing that the father of our species was, a miserable being far lower than the lowest savage now existing ?

Answer.—None at all. This popular fancy is the child of Evolution, not of the Doctrine of Descent. If the principles of heredity discovered by Mendel are true—and they have been verified again and again—then the first man must have been specifically *the same* as his descendants, and "the lowest savages now existing" must be regarded as cases of extreme *degeneration*. Had our first father been an ape-like being, he would have had an ape-like family. Beyond all doubt, he was as free from ape-like characters as his children.

Q.—What are the principles of heredity which Mendel discovered ?

A.—The essence of the Mendelian hypothesis is, that certain characters in plants or animals *remain by themselves* ("unit characters"), and *will not blend* with other characters, when the two are brought into juxtaposition in breeding. That sounds formidable, but an illustration will make it clear. Suppose we select two pea plants, one bearing smooth peas and the other crinkled; and suppose further, that they are both "pure," that is to say, they each breed true to type: the smooth, if self-fertilised, produces nothing but smooth peas; and similarly, the crinkled nothing but crinkled peas. On crossing these two peas, the first generation (F j) will be either *all* smooth or *all* crinkled; but in the second generation, obtained by inter-

crossing the members of the first, three-fourths will either be all smooth or all crinkled, and the remaining fourth will have the other character. These facts may be represented as follows, where D and R are the two plants,

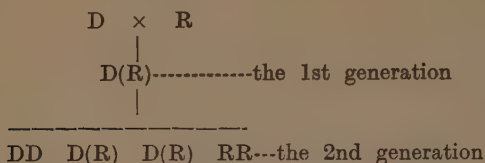


The members of the first generation are all "D's." They all resemble the same parent (D). But their offspring (the second generation) resemble *both* parents in the proportion of 3 D's to 1 R. So then, although the first generation *seems* to consist of pure D's, they are really "hybrids," for they produce a mixed offspring of both D's and R's. For this reason, the parent which the first generation resembles, is said to be "dominant" (D), and the other parent "recessive" (R).

So much for the *facts* discovered by Mendel. Now for his *explanation* of the facts. He assumed that the members of the first generation produced *two kinds of germ-cells* in each sex—that is, two kinds of pollen grains and two kinds of ovules. "One kind possesses the dominant character possessed by the dominant parent; the other kind the recessive character possessed by the other parent. In other words, the dominant and the recessive properties of the parents are conveyed in separate germ-cells to the hybrid. *No single germ-cell can carry both dominant and recessive properties. The germ-cells are not hybrids, although the individuals that produced them may be.* This is what Mendel called *segregation* . . . There is only one kind of germ-cells in the dominant, and only one kind in the recessive; but there are two kinds in the 'hybrids.' The individual (plant or animal) may be 'pure' or 'hybrid': but every germ-cell which it contains, is either purely dominant or purely recessive, and never partly the one and partly the other." *This is the essence of Mendel's theory (14).*

Returning to the diagram (where D is the dominant, and R the recessive parent), the first generation consists of impure dominants, and may therefore be written D(R). In the second generation

there are three D's to one R. The R is a pure recessive (RR); but it is found that only one of the D's is a pure dominant (DD), the other two being impure or hybrid D(R). The diagram may therefore be re-written as follows :



Or, reducing it, like Mendel, to algebraical formulae, we get

$$\begin{array}{ll}
 D \times R & = D(R) \text{-----} \quad \text{the 1st generation.} \\
 (D+R)(D+R) & = DD+2D(R)+RR \text{--- the 2nd generation.} \\
 \text{i.e. } (D+R)^2 & = D^2+2D(R)+R^2.
 \end{array}$$

And so on for the third, and successive generations. The most exhaustive researches have confirmed these formulæ. Wherever the Mendelian relations exist in either plants or animals, every generation will throw out hybrids, pure dominants, and pure recessives, all in proportions which may be calculated beforehand by these algebraical formulæ.

Q. Suppose that two varieties of sheep, for example, were crossed, and their offspring were kept together in a single flock, would there always be a certain proportion of pure dominants and pure recessives as well as hybrids ?

A.—Darwin was inclined to say, “No.” He thought the two races would be swamped as a result of intercrossing, unless they were isolated. But he was wrong.

Q.—Are there authentic instances of this ?

A.—Yes, many, including the classic example discussed by Huxley, namely, the Ancon or “Otter” sheep. This sheep was born in a normal flock ; but, as the name implies, it had a long barrel-shaped body and short bandy legs. The farmer allowed it

to remain with the flock, and there it multiplied: the two types increased side by side in accordance with Mendel's law (a).

Q.—Is there an instance of this in human beings?

A.—Yes, take for example the population of Pitcairn Island (b). In the year 1791, nine English sailors landed on an uninhabited island, named Pitcairn, with six Otaheitan men, and twelve Otaheitan women. To this day, every new generation contains a proportion of pure whites and pure blacks, as well as hybrids. Sometimes pure whites and pure blacks are born in the same family.

Q.—Is it possible, then, that the human race arose from one individual, who increased like the Ancon sheep without being segregated from the parent stock?

A.—Given the individual to begin with, there is no doubt that he would multiply thus in the midst of the tribe where he was born: the first generation would consist of hybrids; but of the second and succeeding generations, only one half would be hybrids, the other half consisting of pure dominants (like himself) and pure recessives (like his consorts) in equal proportions.

Q.—But I understand that different species, when brought together, are found to be infertile, or else they have infertile offspring.

A.—That is true of species around us; but these are too widely separated in relationship to provide a case in point. The horse and the ass, for instance, produce infertile hybrids (mules); but these species belong to different branches of a common stem; and—what is more—to the topmost extremities of those branches. But the case is very different, when we consider two species *next* to each other in the *same* branch or line of descent; for here the relationship is not distant but close. It could not be closer! Who supposes that the first horse, for instance, was infertile with the species, now extinct, in which it was born? In such a case as this, although the two parents belonged to different species, they were members of the same *tribe*, and perhaps also of the very same family! It seems certain that all new species, our own included, arose in this way.

Q.—Can we account for the ancestor of a new species? If he contains new factors, where do the new factors come from?

A.—Not from his *parents*; he inherits the *old* factors from them in accordance with Mendel's law. And not from any *change* in the old factors; for the factors, whether old or new, cannot change. As Mendel showed, they are transmitted from one generation to another with *mathematical* precision. They may undergo changes of *arrangement* and thus give rise to "sports" or "races," that is, the variations of a species within itself; but the factors themselves cannot change. How then can *new* factors arise? They cannot arise unless they are created.

Q.—So Mendel's work implies, that a new species could only arise, if an individual were born in whom its *peculiar* factors were *all created*?

A.—Yes.

Q.—And it also implies the *fixity* of species?

A.—Yes; if the factors cannot vary, neither can the species. If the factors are fixed, the species is fixed.

Q.—This is a picture of the Doctrine of Descent very different from what we are accustomed to see?

A.—Infinitely different! As a rule we only see Evolution—that is, Darwin's picture—which assumes the possibility of accounting for variation by natural causes. But Mendel's work has shattered this delusion by demonstrating the fixity of species: It implies clearly, that new species could not possibly arise, if their new factors were not *created*.

Two pictures more different it would be impossible to imagine. In the first, our own species, for instance, rises slowly and imperceptibly out of apedom, and it is impossible to say where one begins and the other ends; but in the second, it *leaps* into existence suddenly. In the one, it rises *en masse*; in the other, in an individual. The one tells us it is still rising, though,

notwithstanding the loud 'Amens' of Socialists, there is nothing to be seen in the past or the present, but

"Evolution ever climbing after some ideal good,

And Reversion ever dragging Evolution in the mud" !

That is how Tennyson satirised Evolution, particularly in its Darwinian form. But in the other picture, our species is not rising, and cannot rise naturally ; it is fixed. The first portrays Evolution during Descent ; the second Creation during Descent.

APPENDIX II.

MENDELISM AND THE FIRST WOMAN.

Q.—Can we account for the first woman ?

A.—The first woman was the first pure dominant female ; and therefore she did not arise in the first man's first generation ; for the first generation would consist wholly of *impure* dominants. She must therefore have been born in the second or some later generation. Her distinguishing qualities as a woman were created in her body before birth. Her other qualities were all inherited from the first man.

APPENDIX III.

THE SCRIPTURAL AND THE GEOLOGICAL SUCCESSION.

Nothing is more remarkable than the order in which the various forms of life arrived on the earth, according to the Scriptures, and according to the Fossil Record.

I.

According to the Scriptures, they appeared in the following order:

“ Day ” or Age.	
3	I. VEGETABLE LIFE introduced : “ Tender grass.” “ Herbs yielding seed.” “ Fruit tree bearing fruit after its kind wherein is the seed thereof.”
4	Do. do. (continued).
5	II. ANIMAL LIFE introduced : (1) Life in the <i>Waters</i> : “ The moving [creeping (A.V. mar- gin)] creature that hath life.” “ The great sea-monsters ” (R.V.) [not “ whales ” (A.V.)]
6	(2) Life in the <i>Air</i> : “ Every winged fowl.” (3) Life on the <i>Earth</i> (“ dry land ”) : “ Cattle.” “ Creeping things that creep upon the earth.” “ Beasts of the earth.”
	III. SPIRITUAL LIFE introduced : (4) Life in the <i>Soul</i> : Man created (a) “ a living soul ” (i.e. a soul containing “ Life ” ; a spiritual organism ; “ the Image of God.”) (b) an organism consisting of two differentiated persons (“ male and female ”).

Such is the scriptural version. Fortunately, it does not use the terms of *zoology*, either modern or ancient. For a book which addresses the ages, it was not only prudent, but necessary, to pass by terms which are subject to change and decay, and to speak in terms that will always remain intelligible. Neither does it use the *classification* of zoology, a classification based on anatomy, that is, the *structure* of plants and animals. Otherwise, who but anatomists would be able to understand it? The Bible was not written for anatomists, but for *all* kinds of men; and therefore it uses a simple classification of its own, based not on the anatomy, but on the *environment* of organisms, namely, water, air, and land, the three elements, in one or the other of which all organisms live their life. It is therefore a classification of environments rather than of species. So the Scriptures divide species into three great groups, according as they populate the water, the air, or the land. In other words, they recognize

(1) *aquatic* forms of life, or those which live in the *waters*,
 (2) *aerial* forms of life, or those which fly in the *air*,
 and (3) *terrestrial* forms of life, or those which inhabit the *land*.
 The last, or terrestrial, group is sub-divided as follows :

- (i) cattle,
- (ii) creeping things,
- and (iii) beast of the earth.

Sometimes examples are added; but all the way through, both in the Law and in the Prophets, this is the only classification which the Scriptures ever use (*a*).

Now, if the scriptural classification is not zoological, its terms ought not to be invested with zoological meanings. The *aerial* forms, for example, are all comprehended by the Scriptures in one term, "*fowl*." It would be a great mistake, however, to suppose that "*fowl*" means birds. In the Scriptures, it simply means animals which inhabit the air, that is, animals which fly, whether they be birds or mammals or reptiles. In Leviticus xi. 13 (*b*),

(*a*) Cf. Gen. vii. 21; ix. 2; Lev. xi. 46; xx. 25; 1 Kings iv. 33; Ezekiel xxxviii. 20; Hosea ii. 18.

(*b*) Cf. Deut. xiv. 20.

for example, it includes flying *mammals* as well as flying birds :

“And these ye shall have in abomination among the *fowls*, namely, the eagle, etc. . . ., and the bat (a flying mammal).”

In Genesis i. 20, it includes flying *reptiles* as well as flying birds (the primitive toothed birds of that time) :

“Let *fowl* fly above the earth.”

On the other hand, there are certain *birds* which the term “fowl” does *not* apply to in the Scriptures, namely, those which cannot fly. These fall under another group, namely, “the beast of the earth.” For example, Isaiah xliii. 20, reads :

“The *beasts of the field* shall honour me, the jackals (which are mammals) and the *ostriches* (which are *flightless* birds).” [R.V.]

The term, “creeping thing,” supplies yet another example. In Leviticus xi. 41, this is defined as follows :

“Whatsoever goeth upon the belly (snakes), and whatsoever goeth upon all four (certain vertebrates), and whatsoever hath many feet (certain invertebrates).”

Leviticus xi. 29 is still more explicit, for it mentions examples ; and these include mammals (“the weasel” and “the mouse”) as well as reptiles (certain lizards), etc.

In the light of these examples, it is evident that the scriptural terms, though not zoological, have very definite meanings ; and, in every case, their meanings are strictly and consistently determined by the scriptural classification.

According to the Scriptures, then, life entered the world in vegetable organisms : that was *vegetable* life ; next it appeared in animal organisms : that was *animal* life ; and last of all, it appeared in a spiritual organism, “a living soul” : that was *spiritual* life : this is the life which the first Adam forfeited, and which the last Adam has come to restore. Animal life appeared first of all in *aquatic* forms, next in *aerial* forms, and finally in *terrestrial* forms, which culminated in man, where *spiritual* life was introduced last of all. So much for the Scriptural Record.

II.

The *Fossil Record*, on the other hand, consists of the remains of the faunas and floras of the past. The leaves where these ancient forms have traced their memorials, are the strata of the sedimentary rocks. But the earliest organisms of all were probably void of hard parts, and therefore incapable of preservation; and, besides, the older strata (*a*) have been so thoroughly re-crystallized, that their fossil contents have been re-crystallized too. For these reasons, the Fossil Record begins very late in the history of organisms. Even in the *earliest* sedimentary rocks (*b*) remaining to-day, a suite of fossils has been found, which includes highly developed crustaceans (*c*).

Taking the Fossil Record as it is, early geologists divided it into the following three main eras, naming them in the order of their appearance: (1) the primary era, (2) the secondary era, and (3) the tertiary era. An earlier era (pre-cambrian) was subsequently recognized at the bottom of the pile, and a later era (quaternary) at the top.

Now throughout the rocks of the *pre-cambrian and primary eras*, the forms of animal life were characteristically *aquatic*. The earliest fossil fishes belong to a period a little earlier than the middle of the primary era (*d*). Fishes were the highest and dominant forms of this era, and therefore it has been called "*the Age of Fishes*."

Toward the end of the *primary era*, the earliest amphibians (*e*) made their appearance, and they were followed soon afterwards (*f*) by the earliest reptiles (*g*). Some of these primitive amphibians and reptiles attained gigantic size. The reptiles were for the most part terrestrial, but many were *marine* (*h*), and one species at least was capable of flying (*i*).

(*a*) That is, older than pre-cambrian. These re-crystallised rocks, underlying the pre-cambrian, are called "archean."

(*b*) Pre-cambrian.

(*c*) Trilobites, found by C. D. Walcott in the Belt Terrane, U.S.A. Present day examples of crustaceans are the crab and the cray-fish.

(*d*) Namely in the silurian period.

(*e*) The stegocephali date from the carboniferous period.

(*f*) In the permian period.

(*g*) The saurians.

(*h*) Ichthyosaurs, Sauropterygians, and Pythonomorphs

(*i*) Pterosaurs.

In the early part of *the secondary era*, the reptiles exterminated their amphibian rivals, and became dominant on land and in the air. About the middle of the era, however, or a little earlier, the first birds and the first mammals made their appearance; but they were very different from the birds and mammals of to-day. In some respects, the earliest birds were like reptiles; and for this reason, Huxley went so far as to include them both under a common name (*a*). In some respects, too, the earliest mammals were like birds. In Australia, but nowhere else, some of these primitive, bird-like mammals have survived. For example, "the duck-billed platypus" not only has a bill, but still lays eggs and hatches them like a bird.

These primitive birds and mammals were more highly organised, of course, than the early reptiles; but they were only imperfectly developed as classes in themselves; and therefore the reptiles remained supreme till near the end of the era. Accordingly, the secondary era is known as "*the Age of Reptiles.*"

As the secondary era closed, and *the tertiary era* dawned, tremendous changes set in. The earth itself became disturbed. Along vast tracts of its surface, the sedimentary rocks were slowly buckled, and folded up into great mountain chains like the Himalayas, the Alps, the Rockies, and the Andes; and this was accompanied by a world-wide revival of volcanic activity. Thus the earth travailed and brought forth mountains. But other changes, more important still, were introduced with this era; for just as it was dawning, the higher reptiles and the higher mammals arose; and they destroyed the lower reptiles and the lower mammals (*b*) from off the face of the earth. Throughout the whole of this era, the mammals dominated the earth; and therefore it is known as "*the Age of Mammals.*"

The tertiary era was brought to an end, and *the quaternary era* introduced, by the Great Ice Age, when species arose bearing remarkable points of resemblance to our own species. They were not apes: some of them had brains bigger than the average Englishman's; they manufactured and used stone implements; and later species made drawings and paintings "as realistic

(*a*) Namely "sauropsida" (2, p. 256). For instance, the primitive birds had teeth, a short neck, a long tail with two rows of feathers, amphi-cœlous vertebræ, etc.

(*b*) In Australia alone, which was isolated before the advent of the higher mammals, the lower mammals have survived.

and as finely executed in detail and colouring, as the best animal painters of our day could produce." But if they were not apes, they were not men either, for their skulls exhibit ape-like characters, and their art was purely imitative—as imitative as the songs of a lyre-bird. It abounds in topics taken from war and the chase; but it *never* represents such things as temples, tombs, homes, or symbols of government. These are all conspicuous by their absence; and yet *these* are the interests which distinguish our species. There is indeed an infinite hiatus between the culture of species which belonged to the Old Stone Age, and the culture of our own species, which introduced the *New Stone Age*. Evolutionists call it "the hiatus *problem*." A problem indeed for *them*! So distinct are the species of the Old Stone Age from our own, that distinct specific *names* (*a*) have been allotted to them, and the question has been raised, whether they ought not to be referred to different *genera*. There is no doubt, however, that some of them preceded our species in the line of descent.

Well now, it is estimated that the ice-sheet disappeared about 10,000 years ago. Our own species was created some time (still undetermined) after the close of the Ice Age; and it has had dominion over the earth ever since. Accordingly, the quaternary era is well called "*the Age of Man*."

III.

We have looked at the Scriptural Succession and the Geological Succession. Let us now compare them.

First of all, the "*days*" of Genesis i. are geological eras or series of eras (*b*). The archæan, pre-cambrian, primary and

(*a*) For example, *pithecanthropus erectus*, *homo heidelbergensis*, *homo neanderthalensis*, and *homo recens*.

(*b*) The word "*day*" has several different meanings in the Scriptures: Sometimes it means a *solar day* (Proverbs xxvii. 1); sometimes a *solar year* (Daniel viii. 14; ix. 24; Rev. xi. 11); sometimes an indefinite period (Isaiah x. 3); and sometimes an age or dispensation (John viii. 56; 1 Thess. v. 2). In Hebrews xi. 3, which clearly refers to the "*days*" of Genesis i., the Scripture reads, "By faith we understand that the AGES (Greek) have been framed by the Word of God, so that what is seen hath not been

secondary eras of the fossil record fall on the fifth "day" of the creation "week." The total thickness of the sedimentary rocks belonging to these eras, excluding the archæan, was computed by Sollas (a) in 1909 to be about 272,000 feet. If the rate of continuous sedimentation on the ocean floor were one foot per 100 years, this huge stack, over 51 miles high, would represent a period of sedimentation more than $33\frac{1}{2}$ million years long. This figure would perhaps be more than doubled, if we added the time represented by the *breaks* ("unconformities") in the record, and by the enormous amount of sediments which have been *destroyed* in different ways. It is therefore evident, that the fifth "day" lasted for long ages. Similarly, the sixth "day" begins with the tertiary era, and terminates with the creation of man in the quaternary era. The sedimentary rocks of the tertiary era were estimated by Sollas to be 63,800 feet thick, which would represent, on the same computation as before, a period of more than $6\frac{1}{4}$ million years. Let us now take the "days" of creation in order.

According to the Scriptures, vegetable life entered the world on the third "day," and animal life on the fifth "day." We know that vegetable life *must* have preceded animal life, for the former can exist without the latter, but not the latter without the former.

On the fifth "day," according to the Scriptures, the *waters* were peopled first of all, and finally the *air*. The divine command proceeds thus:

"And God said,
Let the *waters* swarm with swarms of living creatures,
And let *fowl* fly above the earth on the face of the expanse
of the heaven."

The execution of the command reads as follows:

"And God created
The great sea monsters and every living creature that
moveth which the *waters* brought forth . . . ,
And every winged *fowl* . . ."

In both these passages the fifth "day" begins with aquatic forms of life and ends with aerial forms called "fowl." It is evident that

made out of things which do appear." Here then, in the New Testament, the "days" of Genesis i. are plainly interpreted to mean "ages."

(a) 5: "Further research may increase but not reduce this estimate."

the comma here, like some of the commas of prophecy, represents a very long pause; for the first part of the fiat was spoken a great while before the pre-cambrian era; and the second part in the beginning of the secondary era. The term "fowl" in Scripture denotes, not birds, but, as shown above, *any* animals that fly, whether they be birds, mammals, or reptiles.

The Fossil Record interprets and confirms these words. The fifth "day" included the primary era, and ended with the secondary era. Now, animal life remained entirely aquatic till near the end of the primary era, which is therefore called "the Age of Fishes"; and then the first amphibians arose, followed soon after by gigantic reptiles, which dominated the sea, the land, and the air throughout the whole of the secondary era, or "the Age of Reptiles," as it is called. Thus forms of life arose which mastered the air. The primitive *birds* also arose during this era: they advanced in rapid stages toward the standard of full development; and, in the evening of the era, they began to rival the reptiles for supremacy in the air. Even in those times, then, aviation was the latest and most crucial accomplishment!

On the fifth "day," therefore, as Revelation and Research agree, animal life remained in the waters for long ages; and not long after the exodus to dry land, it mastered the air. The scriptural term, "sea-monsters," may refer to sharks, for sharks began to abound in the latter part of the primary era (*a*), and perhaps also to the giant amphibians and marine reptiles (*b*), which flourished soon after. Likewise, the term "fowl" applies here to the flying reptiles, though it includes, of course, the flying birds too.

But according to the Fossil Record, there were not only aquatic and aerial animals in the secondary era, but *terrestrial* animals as well, namely, the land reptiles and the primitive mammals. And yet the Scriptures make no mention of land animals on the fifth "day." To anyone who denies the Doctrine of Descent, this will prove an insuperable difficulty; but the Doctrine of

(*a*) "Gigantic Arthrodiros (Dinichthys, Titanichthys, Diplognathus) and Selachii (sharks, etc.) are remarkably abundant in the Middle and Upper Devonian of Ohio, Wisconsin, and New York." *Text Book of Palaeontology* by K. Zittel, Vol. II, p. 3.

(*b*) "Ichthyosaurian (marine reptilian) remains are found exclusively in the marine deposits of the Mesozoic (secondary) era." *Ibid.*, p. 165.

Descent clears it up: The land reptiles and mammals of the secondary era are not mentioned by the Scriptures, because they were *links* merely: they were the *transitional* forms from which the *permanent* land forms arose on the sixth "day." None of the permanent land forms were introduced till the sixth "day" (that is, the tertiary era, or "the Age of Mammals") began to dawn; and therefore land forms are not mentioned by the Scriptures before this "day." But the *flying* reptiles ("fowl"), on the other hand, were *not* links. They represented the *ne plus ultra* of reptilian development in the air; and they were totally blotted out at the end of the era (a).

The sixth "day" is introduced in Scripture by the following words:

"And God said,
Let the *earth* bring forth the living creatures after its kind,
(1) cattle,
and (2) creeping thing,
and (3) beast of the earth."

But to show that these groups are not mentioned here in the

(a) The "days" of creation neither commenced nor terminated abruptly. They "*began* to dawn" before they dawned. They were not separated from one another by knife-edge junctions; but, like the dispensations of human history, they each grew out of the one that went before, and came in fully at last by means of a crisis or a series of crises. As Dr. G. Guinness has shown, "the patriarchal dispensation" stretched "from Adam to Moses"; but the next or "Jewish dispensation" began, not with Moses, but with Shem, that is, long before Moses, about the time of the flood; and it ended with the fall of Jerusalem in A.D.70. In like manner, the third dispensation (the "Times of the Gentiles") commenced, not with the fall of Jerusalem, but some 600 years earlier, namely, with the Babylonian captivity; and it is ending now. Similarly the full commencement of "the age to come" is not yet, and cannot be till the Lord returns; but its *early* foreshadowing is discernible in the Reformation. As Dr. Guinness has shown, each of these "ages" measures about the same length (seven "times" or 2520 years); but each age began to run some five or six centuries back in the age preceding. All this repeats in antitypes the "days" or ages of Genesis. The *permanent* land animals (the *higher* reptiles and mammals) never appeared till the sixth "day" (the tertiary era); but their immediate ancestors (the *primitive* reptiles and mammals) entered the scene toward the close of the "day" before; and when the fifth "day" ended, they were extinguished in the prolonged crisis, which gave the sixth day its full commencement, and introduced the higher land animals.

order of their arrival, the order is varied in the next verse, which describes the effects of the fiat :

“ And God made
the beast of the earth after its kind,
and the cattle after their kind,
and everything that creepeth upon the ground after
their kind.”

Now the term, “cattle,” exemplifies higher mammals which were ceremonially unclean to the children of Israel. The term, “creeping thing,” denotes (as shown above) all the higher land-reptiles (snakes and lizards), some of the higher mammals (the weasel and the mouse), and also certain invertebrates. The other term, “beast of the field,” includes (as shown above) higher mammals (e.g. “jackals”) and the flightless birds (“ostriches”) in its denotation.

It is therefore evident, that the land animals, which were created, according to the Scriptures (Genesis i. 24), on the sixth day, namely, “cattle, and creeping thing, and beast of the field,” include birds and reptiles, as well as mammals; but the birds are flightless, the reptiles are exclusively the *higher* reptiles, and the mammals are exclusively the *higher* mammals. And, as we have seen already, these are the very animals, which, according to the Fossil Record, commenced their existence in the tertiary era, that is, the sixth creative “day,” and have persisted down to the present time with little if any variation. Moreover, as soon as they appeared, they exterminated the primitive reptiles, the primitive birds, and the primitive mammals.

Last of all, *man* appeared. This is the verdict both of the Scriptures and of the Fossil Record. But the Scriptures go infinitely further than the Fossil Record. According to the Scriptures, the first man was more than an animal: he was a spirit as well. He was not only a living body, but also “*a living soul.*” His advent marked the terminus of one universe, and the starting point of another.

“*And on the seventh day, God finished his work which he had made; and he rested on the seventh day from all his work which he had made. And God blessed the seventh day and hallowed it.*”

So then, the seventh day dawned after the first man was created. Man entered a world which was entering its Sabbath. And for this reason, if anyone expects to see creation in progress

at the present time, he will be disappointed. If man is the last species which God created, we shall look in vain for present-day examples of the origin of species. And this is the reason why biologists *have* been looking in vain for these sixty years last past. The work of Creation ended when the seventh "day" dawned, for "in it God rested from all his work which he had created and made." (a)

(a) Genesis ii. 3.

